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For the Record

G Protein-Coupled Odorant Receptors: from sequence to structure

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Figure 1 and Figure 2

Supplementary material: PDB files of hOR1G1 models and sequences alignment between ORs and GPCRs in fasta format.

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Abstract

Odorant receptors (ORs) are the largest sub-family within Class-A G Protein-Coupled Receptors (GPCRs). No experimental structural data of any OR is available to date and atomic-level insights are likely to be obtained by means of molecular modeling. In this article, we critically align sequences of ORs with those GPCRs for which a structure is available. Here, an alignment consistent with available site-directed mutagenesis data on various ORs is proposed. Using this alignment, the choice of the template is deemed rather minor for identifying residues that constitute the wall of the binding cavity or those involved in G-protein recognition.

Keywords: odorant receptor, sequence, structure, binding cavity, olfactory

Introduction

Odorant molecules are perceived by mammals through extraordinary subtle mechanisms, notably involving odorant receptors (ORs).(1) In human, the family of genes coding for ORs is one of the largest, as it represents more than 2% of our genome. At the protein level, ORs account for more than 4% of our proteome and constitute the largest sub-family of Class-A (or Rhodopsin like) G Protein-Coupled Receptors (GPCR). GPCRs are seven-transmembrane domain (7 TM) proteins that transmit extracellular signals across the plasma membrane. Although structures of some Class-A members have been experimentally solved, no experimental structure is to date available for any OR. For now, molecular modeling appears as the only way to propose atomic-level mechanisms of either ligand selectivity or receptor activation for these proteins on a structural basis. Models can either be made *ab-initio* or based on sequence homology with respect to known experimental structures.(2; 3) In both cases, sequence alignment between the candidate receptor and the experimentally determined templates is undoubtedly the crucial step.

Within the motifs that represent hallmarks of Class-A GPCR, most are shared by ORs,(4) suggesting rather similar activation mechanism upon ligand binding and similar signal transduction. It follows that templates available for now may be sufficiently adapted to recover trustable OR models. Nevertheless, ORs conserved motifs are either broader or different than those observed in Class-A GPCRs. These motifs within OR sequences are as follows, with those shared by non-olfactory Class-A GPCRs written in bold:

- **GN** in Trans-Membrane domain 1 (TM1),

- LHxPMYFFLxx**LSxxD** in TM2,
- MAY**D(E)RY**VAICxPLxY in TM3,
- **SY** in TM5,
- KAFSTCxSH in TM6,
- PxL**NPxIY**SLNR in TM7.

Although TM1, 2, 3 and TM7 motifs are sufficiently conserved to lead to unambiguous alignments, TM4, 5 and 6 cases are more subtle and require additional data, ideally brought by experiments. An accurate sequence alignment will provide extremely useful information on residues forming the binding cavity or involved in receptor activation. Based on a thorough alignment and analysis of conservation thresholds between mouse and human OR, such information was inferred and allowed identifying residues that contribute to ligand binding.(5) In this article, we revisit and update this data by recapitulating available experimental results published so far. We combine information gained by sequence alignments and *in vitro* data using site-directed mutagenesis to provide an optimal sequence alignment consistent with experiment. In a second step, we use this alignment to assess the choice of the template for building a representative OR and to confirm that site-directed mutagenesis data can be interpreted on a structural basis using this model.

Results

Olfactory and non-Olfactory GPCR alignment

Alignments of TM1, TM2, and TM3 sequences are straightforward as the conserved motifs in each of these TM domains are clearly identified between ORs and available GPCR structures. Figure 1 recapitulates the alignment for ORs with available site-

directed mutagenesis data. In TM1, the typical Class-A GPCR 'GN' motif is conserved at 90 and 99% within human and mouse OR, respectively.(6; 7) Here, residue N is referenced as $N^{1.50}$, according to the Ballesteros-Weinstein notation.(8) In TM2, the PMY motif found in ORs has no equivalence in any other Class-A GPCRs but the highly conserved LSxxD in ORs is straightforward to align with the highly conserved GPCR LAxAD ($D^{2.50}$) motif. The alignment of TM3 is the easiest case because of the presence of both the D(E)RY motif ($R^{3.50}$) involved in the activation of all Class-A GPCRs, and the cysteine residue $C^{3.25}$ involved in the cysteine bridge with the Extracellular Loop 2 (ECL2). Within TM4, the tryptophan residue ($W^{4.50}$) strongly conserved in non-olfactory GPCRs is also present in ORs, with conservation of 58% and 50% within human and mouse ORs, respectively. This residue provides a good anchoring point for fitting TM4 sequences of ORs and non-olfactory GPCRs. Before considering TM5 and TM6, we focus on TM7, where the NPxxY ($P^{7.50}$) motif is conserved in all Class-A GPCRs making easy the alignment of TM7. In TM5, the highly conserved proline ($P^{5.50}$) in Class-A GPCR(8) is moderately represented in OR (conservation of 39% and 37%, in human and mouse ORs, respectively). However, the tyrosine residue of the 'SY' ($Y^{5.58}$) motif is strongly conserved in both GPCR sub-families (100% and 93% in mouse and human ORs, respectively). Taking this tyrosine residue as a reference assesses the accurate alignment of TM5 and remains consistent with of the position of the proline residue ($P^{5.50}$) between OR and sequences associated to available X-ray structures.

TM6 is even much trickier, as this TM lacks the CWxP ($P^{6.50}$) motif considered as the TM6 hallmark of Class-A GPCR. In TM6, ORs sequences show a highly conserved KAFSTCxSH motif for which the equivalence with non-olfactory GPCR is not obvious.

A 'KA' motif can however be identified in non-olfactory GPCRs, and a 29% conserved Proline in human ORs is aligned with the $P^{6.50}$, assessing our alignment.

Intra and extra-cellular loops are also of importance for the function of a receptor. Here, we notably focus on ECL2 since it is involved in ligand binding and receptor structure. A disulfide bridge between ECL2 and $C^{3.25}$ at the top of TM3 is common to all Class-A GPCRs. In ORs, three cysteines are present in ECL2 domain and one at the top of TM3, suggesting the presence of two disulfide bridges. Indeed, in addition to the canonical S-S bridge (between $C97^{3.25}$ and $C179^{ECL2}$), identification of an additional S-S bridge within ECL2 (between $C169^{ECL2}$ and $C189^{ECL2}$) was characterized by mass spectrometry in hOR1D2.(9) Forcing the alignment of the canonical cysteine bridge between ORs and non-olfactory GPCRs ($C97^{3.25}$-$C179^{ECL2}$) provides a crucial data for the optimal alignment of ECL2.

This sequence alignment does not contain any gap within TM domains. The only gaps are set within loop sequences, consistent with a larger sequence and structure variability within loops with respect to the bundle.(10) Based on the alignment of Figure 1, we next address the choice of template used for building a structural model consistent with site-directed mutagenesis data.

3D structure and comparison with experimental data

Here, we analyze the accuracy of the alignment by translating it into atomic-level models. Five models of the human OR1G1 are built either with Modeller(11) using different receptor structures as templates (Bovine Rhodopsin, Human β2-adrenergic, Human Chemokine-1, and a combination of them three) or by means of the *ab initio*

GEnSeMBLE (GPCR Ensemble of Structures in Membrane BiLayer Environment) complete sampling method.(3; 12; 13)

Figure 2 gathers information inferred from these models. Focusing on the helical TM domains, all structures are similar with Cα Root Mean Square deviations (RMSd) lower than 3 Å (see Figure 2C) between pairs of models, at the exception of that based on the chemokine receptor. The latter exhibits a RMSd value of ~ 6 Å with respect to other structures. The main difference when using the Chemokine receptor template appears for TM1, TM2 and TM7 which show a small deviation with respect to other templates. This difference has however a small influence on the position of residues lining the binding cavity. Focusing on eight of them ($104^{3.32}$, $108^{3.36}$, $202^{5.42}$, $206^{5.46}$, $252^{6.48}$, $256^{6.52}$, $260^{6.56}$, and $279^{7.42}$, *vide infra*), we compute a Cα RMSd of 3.2 Å between the multi-template model and that build with the Chemokine receptor. Importantly, despite these tertiary structure weak dissimilarities, all models exhibit similar secondary folds. Furthermore, residues that constitute the wall of the binding cavity and those involved in the signaling pathway through a contact with the G-protein appear to be located in the same regions.(14; 15) As observed in all Class-A GPCRs, the canonical binding site is made up by residues belonging to TM3, TM5, TM6, and TM7.(5) Inspection of TM3 3D-structure shows that side-chains of residues $109^{3.37}$, $108^{3.36}$, $105^{3.33}$, and $104^{3.32}$ participate to the binding cavity. This is consistent with a modification of the odorant response when tested in mutants expressed *in vitro* (Figure 1). In the models, residue $112^{3.40}$ is located under the binding cavity. Its non-synonymous mutation is consistent with a general decrease of the OR response to odorants in hOR1G1 (Ala → Ser),(16), mOR-EG (Ser → Ala or Val),(17; 18), mOR42-3 (Val → Ser),(19) and hOR1A1 (Ser → Ala).(20)

TM4 would contribute to lining the binding cavity through one or two residues located at the top of the helix. Mutations at these positions (4.55 and 4.56) however do not affect responsiveness of the receptor,(20) suggesting that this contribution is deemed rather minor.

Amino-acids belonging to TM5 largely contribute to define the binding cavity. Side-chains of residues $199^{5.39}$, $202^{5.42}$, $206^{5.46}$ point inward the cavity, consistent with a modification of the response to odorants upon mutation on mOR-EG(17; 18) and mOR42-3 *in vitro*.(19) In mOR-EG, mutations at residues located deeper into the structure (5.50 and 5.51) also affected responsiveness of the receptor when stimulated by odorants. They would rather contribute to stabilize the receptor since they correspond to positions within the sequence showing a larger conservation (Pro at ~40% at position 5.50, Phe/Leu at 64% at 5.51, and Ile at ~85% at 5.61) than hypervariable residues found within the cavity.(5) The main contribution of TM6 to the function of the receptor stems not only from residues within the binding cavity but also from others involved in the activation. The highly conserved aromatic residue at position 6.48 (Y/F252 is conserved at ~95%) is located at the bottom of the binding cavity. One, two, and three helix turns above, residues $255^{6.51}$-$256^{6.52}$, $259^{6.55}$-$260^{6.56}$, and $263^{6.59}$-$264^{6.60}$ are pointing to the cavity. These positions are in line with *in vitro* data on mOR-EG,(17; 18) mOR42-3,(19) hOR2AG1,(21) hOR1A1, and hOR1A2, where the response of the receptor upon odorant stimulation is modified by mutations at these positions.(20) Deeper into the intracellular part, the 'KAFSTCASH' is likely to take part in the contact with the G protein upon activation, as shown on mOR-EG,(14). The contribution of TM7 to the binding pocket is mostly coming from residue $279^{7.42}$, consistent with its impact on ligand recognition on several OR *in vitro*.(17; 20; 21)

Conclusion

We have built an alignment of mammalian Odorant Receptor sequences that recapitulates available experimental data obtained by site-directed mutagenesis. More particularly, the debatable alignment of TM5 and TM6 are now consistent with data provided by several other studies. The effect of the template in the case of homology-based approaches is deemed rather minor if one is interested in identifying residues that belong to the binding cavity or those potentially involved in the coupling of a G-protein to the OR. These data provide a robust starting point for initiating mechanistic or structural studies involving odorant receptor and their complexes with ligands.

Materials and Methods

The alignment was performed with Jalview.(22) Sequences have been firstly aligned with ClustalW prior to manual adjustments. Tools of GPCRDB have been used to obtain a snakeplot. 3D models have been built either with Modeller(11) by homology modeling using a mono- or multi-template (Bovine Rhodopsin PDB:1U19, Human β2-adrenergic PDB:2RH1 and Human Chemokine-1 PDB:2LNL) or by an *ab initio* protocol with the GEnSeMBLE (GPCR Ensemble of Structures in Membrane BiLayer Environment) complete sampling method(12). Visual analysis, images, and RMSd calculations have been performed with VMD.(23)

Acknowledgments

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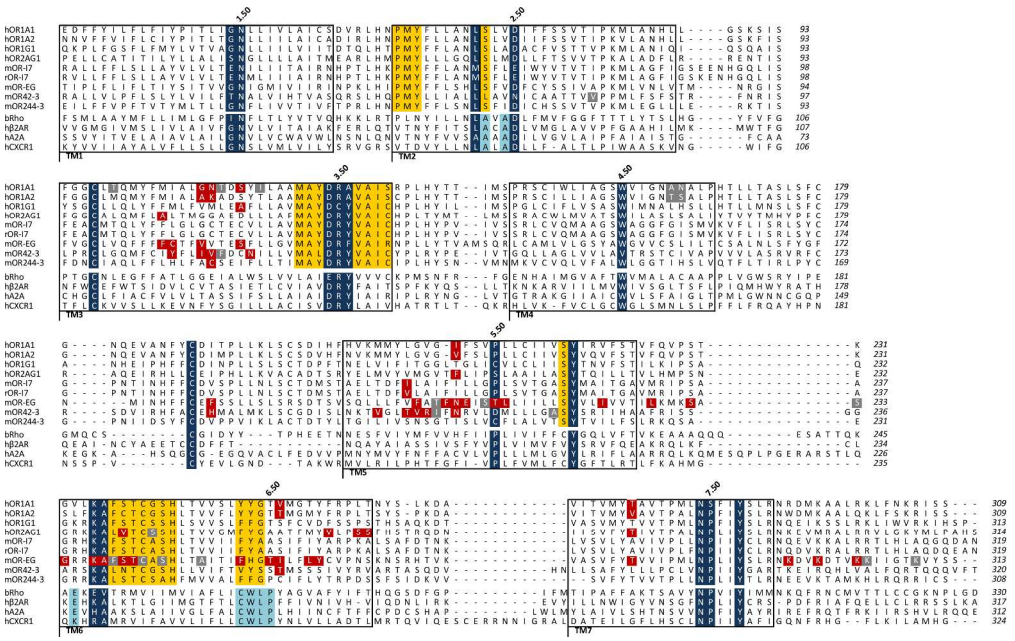
Figure 1. Alignment of ORs with some G Protein-Coupled Receptors (GPCRs). Only ORs for which site-directed mutagenesis combined to molecular modeling was available are considered. Residues commonly conserved between ORs and non-OR GPCRs (dark blue), specific to ORs only (yellow), and specific to non-OR GPCRs only (light blue) are identified. Residues which experimentally modify the OR response upon odorant stimulation are shown in red, while those which do not change the OR response are in gray. Each transmembrane (TM) domain is boxed and the Ballesteros-Weinstein numbering scheme is indicated for Class-A GPCR. An alternative numbering scheme is proposed for the TM5 and TM6 of OR, which takes into account for highly conserved residues within these TMs (orange, italics). Site-directed mutagenesis data are reported for the Human (h) OR1A1 and hOR1A2,(20) hOR1G1,(24) hOR2AG1,(21) Rat (r) and Mouse (m) I7,(25) mOR-EG,(17; 18) mOR42-3,(19) and mOR244-3.(26) OR sequences are aligned with sequences of Bovine Rhodopsin (bRho), human β2-adrenergic (hβ2AR), human Adenosine-2A (hA2A), and human Chemokine-1 (CXCR1) receptors.

Figure 2. Residues governing the function of mammalian ORs projected onto the sequence and the structure of hOR1G1. A, snakeplot of the OR sequence with residues involved in odorant contact in green and those involved in the OR activation through a contact with the G Protein in purple. Residues in light green will be strongly in contact with the odorant, those in dark green contribute to the wall of the binding cavity. Number 50 residue of the Ballesteros-Weinstein notation are circled in blue. The cysteine bridges are also indicated. B, position of important residues on the structure of the receptor, with some Ballesteros-Weinstein notations. C, C-α positions Root Mean Square deviation (in Å) between models build using Bovine Rhodopsin (1U19), β2-adrenergic (2RH1), Chemokine-1 (2LNL) receptor, or a multi-template (Multi) of the three receptors cited above, or an *ab initio* model.



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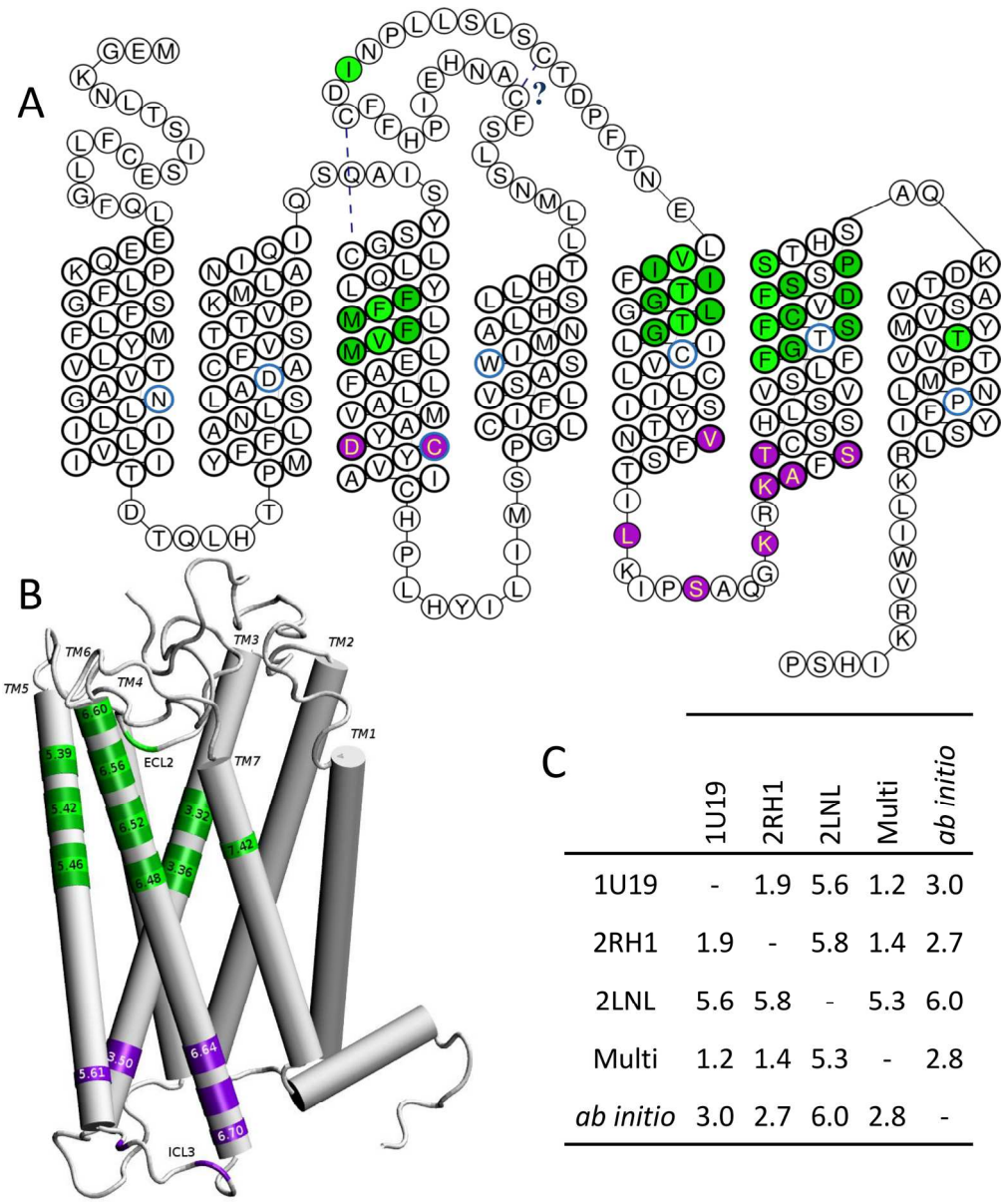

C

	1U19	2RH1	2LNL	Multi	*ab initio*
1U19	-	1.9	5.6	1.2	3.0
2RH1	1.9	-	5.8	1.4	2.7
2LNL	5.6	5.8	-	5.3	6.0
Multi	1.2	1.4	5.3	-	2.8
ab initio	3.0	2.7	6.0	2.8	-

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174x208mm (300 x 300 DPI)

SUPPORTING INFORMATION FOR

G Protein-Coupled Odorant Receptors: from sequence to structure

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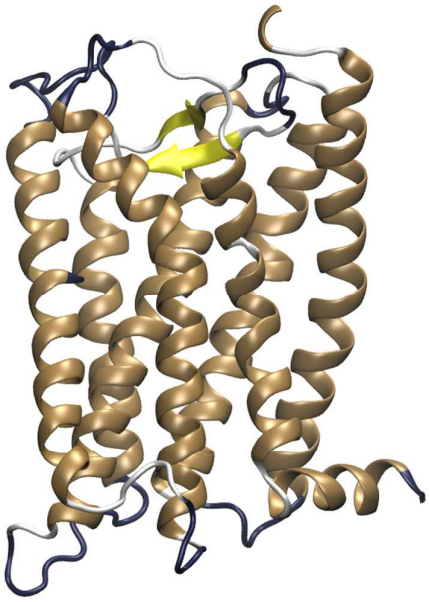
PDB and structure of OR1G1 built by homology modeling using rhodopsin as a template (PDB Id 1U19)



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ATOM      3  CB  MET     1      51.851   3.532  30.891  1.00 32.18           C
ATOM      4  CG  MET     1      51.243   4.098  32.176  1.00 32.18           C
ATOM      5  SD  MET     1      52.431   4.307  33.537  1.00 32.18           S
ATOM      6  CE  MET     1      52.855   2.547  33.675  1.00 32.18           C
ATOM      7  C   MET     1      51.651   3.108  28.484  1.00 32.18           C
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ATOM     11  CB  GLU     2      55.299   2.747  27.788  1.00126.56           C
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ATOM     39  N   LEU     6      56.822  -0.236  31.936  1.00170.02           N
ATOM     40  CA  LEU     6      56.809   1.146  32.300  1.00170.02           C
ATOM     41  CB  LEU     6      55.659   1.509  33.264  1.00170.02           C
ATOM     42  CG  LEU     6      55.362   0.475  34.376  1.00170.02           C
ATOM     43  CD1 LEU     6      54.779  -0.823  33.794  1.00170.02           C
ATOM     44  CD2 LEU     6      56.575   0.222  35.285  1.00170.02           C
ATOM     45  C   LEU     6      58.108   1.496  32.942  1.00170.02           C
ATOM     46  O   LEU     6      58.148   2.077  34.025  1.00170.02           O
ATOM     47  N   THR     7      59.221   1.181  32.256  1.00109.45           N
ATOM     48  CA  THR     7      60.490   1.559  32.790  1.00109.45           C
ATOM     49  CB  THR     7      61.656   1.007  32.011  1.00109.45           C
ATOM     50  OG1 THR     7      62.873   1.324  32.669  1.00109.45           O
ATOM     51  CG2 THR     7      61.652   1.574  30.581  1.00109.45           C
ATOM     52  C   THR     7      60.524   3.050  32.752  1.00109.45           C
ATOM     53  O   THR     7      60.957   3.701  33.702  1.00109.45           O
ATOM     54  N   SER     8      60.035   3.628  31.639  1.00194.29           N
ATOM     55  CA  SER     8      60.001   5.051  31.501  1.00194.29           C
ATOM     56  CB  SER     8      61.107   5.614  30.592  1.00194.29           C
ATOM     57  OG  SER     8      62.381   5.384  31.176  1.00194.29           O
ATOM     58  C   SER     8      58.692   5.396  30.874  1.00194.29           C
ATOM     59  O   SER     8      58.018   4.544  30.297  1.00194.29           O
ATOM     60  N   ILE     9      58.295   6.674  30.997  1.00297.21           N
ATOM     61  CA  ILE     9      57.056   7.138  30.448  1.00297.21           C
ATOM     62  CB  ILE     9      55.997   7.398  31.476  1.00297.21           C
ATOM     63  CG2 ILE     9      55.683   6.066  32.179  1.00297.21           C
ATOM     64  CG1 ILE     9      56.432   8.521  32.429  1.00297.21           C
ATOM     65  CD1 ILE     9      55.295   9.053  33.300  1.00297.21           C
ATOM     66  C   ILE     9      57.352   8.436  29.774  1.00297.21           C
ATOM     67  O   ILE     9      58.508   8.848  29.699  1.00297.21           O
ATOM     68  N   SER    10      56.315   9.096  29.217  1.00149.09           N
ATOM     69  CA  SER    10      56.560  10.335  28.538  1.00149.09           C
ATOM     70  CB  SER    10      55.816  10.455  27.198  1.00149.09           C
ATOM     71  OG  SER    10      54.413  10.449  27.419  1.00149.09           O
ATOM     72  C   SER    10      56.108  11.469  29.400  1.00149.09           C
ATOM     73  O   SER    10      54.933  11.593  29.740  1.00149.09           O
ATOM     74  N   GLU    11      57.068  12.338  29.758  1.00175.19           N
ATOM     75  CA  GLU    11      56.863  13.513  30.551  1.00175.19           C
ATOM     76  CB  GLU    11      57.150  13.322  32.051  1.00175.19           C
ATOM     77  CG  GLU    11      56.113  12.464  32.779  1.00175.19           C
ATOM     78  CD  GLU    11      56.515  12.391  34.246  1.00175.19           C
ATOM     79  OE1 GLU    11      57.563  12.994  34.603  1.00175.19           O
ATOM     80  OE2 GLU    11      55.779  11.735  35.030  1.00175.19           O
ATOM     81  C   GLU    11      57.886  14.466  30.037  1.00175.19           C
ATOM     82  O   GLU    11      57.723  15.044  28.965  1.00175.19           O
ATOM     83  N   CYS    12      58.962  14.689  30.816  1.00121.64           N
ATOM     84  CA  CYS    12      59.998  15.543  30.322  1.00121.64           C
ATOM     85  CB  CYS    12      60.507  16.542  31.373  1.00121.64           C
ATOM     86  SG  CYS    12      61.267  15.718  32.805  1.00121.64           S
ATOM     87  C   CYS    12      61.160  14.680  29.935  1.00121.64           C
ATOM     88  O   CYS    12      62.307  15.018  30.223  1.00121.64           O
ATOM     89  N   PHE    13      60.899  13.540  29.260  1.00 91.87           N
ATOM     90  CA  PHE    13      61.987  12.703  28.843  1.00 91.87           C
ATOM     91  CB  PHE    13      62.278  11.558  29.831  1.00 91.87           C
ATOM     92  CG  PHE    13      63.578  10.934  29.456  1.00 91.87           C
ATOM     93  CD1 PHE    13      64.763  11.530  29.824  1.00 91.87           C
ATOM     94  CD2 PHE    13      63.619   9.753  28.754  1.00 91.87           C
ATOM     95  CE1 PHE    13      65.969  10.962  29.489  1.00 91.87           C
ATOM     96  CE2 PHE    13      64.823   9.179  28.415  1.00 91.87           C
ATOM     97  CZ  PHE    13      66.000   9.785  28.781  1.00 91.87           C
ATOM     98  C   PHE    13      61.591  12.097  27.531  1.00 91.87           C
ATOM     99  O   PHE    13      60.429  11.755  27.325  1.00 91.87           O
ATOM    100  N   LEU    14      62.559  11.926  26.609  1.00 63.74           N
ATOM    101  CA  LEU    14      62.251  11.415  25.301  1.00 63.74           C
ATOM    102  CB  LEU    14      63.425  11.528  24.313  1.00 63.74           C
ATOM    103  CG  LEU    14      63.936  12.968  24.126  1.00 63.74           C
ATOM    104  CD1 LEU    14      65.006  13.043  23.026  1.00 63.74           C
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ATOM    105  CD2 LEU    14      62.780  13.958  23.911  1.00 63.74           C
ATOM    106  C   LEU    14      61.920   9.966  25.433  1.00 63.74           C
ATOM    107  O   LEU    14      62.408   9.290  26.337  1.00 63.74           O
ATOM    108  N   LEU    15      61.045   9.447  24.541  1.00206.37           N
ATOM    109  CA  LEU    15      60.706   8.052  24.633  1.00206.37           C
ATOM    110  CB  LEU    15      59.195   7.778  24.505  1.00206.37           C
ATOM    111  CG  LEU    15      58.567   8.151  23.148  1.00206.37           C
ATOM    112  CD1 LEU    15      57.064   7.837  23.137  1.00206.37           C
ATOM    113  CD2 LEU    15      58.868   9.605  22.752  1.00206.37           C
ATOM    114  C   LEU    15      61.408   7.327  23.532  1.00206.37           C
ATOM    115  O   LEU    15      60.801   6.605  22.743  1.00206.37           O
ATOM    116  N   GLY    16      62.741   7.460  23.516  1.00111.49           N
ATOM    117  CA  GLY    16      63.604   6.846  22.550  1.00111.49           C
ATOM    118  C   GLY    16      63.503   5.373  22.744  1.00111.49           C
ATOM    119  O   GLY    16      63.781   4.588  21.842  1.00111.49           O
ATOM    120  N   PHE    17      63.153   4.948  23.965  1.00134.84           N
ATOM    121  CA  PHE    17      63.112   3.540  24.200  1.00134.84           C
ATOM    122  CB  PHE    17      62.786   3.163  25.663  1.00134.84           C
ATOM    123  CG  PHE    17      61.436   3.661  26.052  1.00134.84           C
ATOM    124  CD1 PHE    17      60.309   2.930  25.757  1.00134.84           C
ATOM    125  CD2 PHE    17      61.299   4.852  26.728  1.00134.84           C
ATOM    126  CE1 PHE    17      59.063   3.384  26.120  1.00134.84           C
ATOM    127  CE2 PHE    17      60.055   5.311  27.094  1.00134.84           C
ATOM    128  CZ  PHE    17      58.933   4.577  26.790  1.00134.84           C
ATOM    129  C   PHE    17      62.104   2.922  23.279  1.00134.84           C
ATOM    130  O   PHE    17      62.337   1.839  22.746  1.00134.84           O
ATOM    131  N   SER    18      60.953   3.589  23.066  1.00105.76           N
ATOM    132  CA  SER    18      59.930   3.021  22.236  1.00105.76           C
ATOM    133  CB  SER    18      58.656   3.882  22.194  1.00105.76           C
ATOM    134  OG  SER    18      58.079   3.956  23.489  1.00105.76           O
ATOM    135  C   SER    18      60.399   2.862  20.824  1.00105.76           C
ATOM    136  O   SER    18      60.244   1.791  20.237  1.00105.76           O
ATOM    137  N   GLU    19      60.993   3.922  20.240  1.00127.22           N
ATOM    138  CA  GLU    19      61.361   3.854  18.852  1.00127.22           C
ATOM    139  CB  GLU    19      60.385   4.588  17.937  1.00127.22           C
ATOM    140  CG  GLU    19      60.327   6.087  18.235  1.00127.22           C
ATOM    141  CD  GLU    19      59.051   6.613  17.609  1.00127.22           C
ATOM    142  OE1 GLU    19      58.138   5.776  17.388  1.00127.22           O
ATOM    143  OE2 GLU    19      58.963   7.844  17.353  1.00127.22           O
ATOM    144  C   GLU    19      62.626   4.602  18.619  1.00127.22           C
ATOM    145  O   GLU    19      63.156   5.275  19.498  1.00127.22           O
ATOM    146  N   GLN    20      63.124   4.508  17.373  1.00 93.23           N
ATOM    147  CA  GLN    20      64.302   5.220  16.992  1.00 93.23           C
ATOM    148  CB  GLN    20      64.778   4.879  15.571  1.00 93.23           C
ATOM    149  CG  GLN    20      65.166   3.411  15.393  1.00 93.23           C
ATOM    150  CD  GLN    20      66.475   3.178  16.132  1.00 93.23           C
ATOM    151  OE1 GLN    20      66.597   3.473  17.320  1.00 93.23           O
ATOM    152  NE2 GLN    20      67.491   2.641  15.406  1.00 93.23           N
ATOM    153  C   GLN    20      63.934   6.670  17.001  1.00 93.23           C
ATOM    154  O   GLN    20      62.780   7.029  16.775  1.00 93.23           O
ATOM    155  N   LEU    21      64.917   7.542  17.288  1.00 93.26           N
ATOM    156  CA  LEU    21      64.678   8.953  17.344  1.00 93.26           C
ATOM    157  CB  LEU    21      65.909   9.766  17.797  1.00 93.26           C
ATOM    158  CG  LEU    21      67.117   9.711  16.840  1.00 93.26           C
ATOM    159  CD1 LEU    21      68.287  10.548  17.379  1.00 93.26           C
ATOM    160  CD2 LEU    21      67.533   8.267  16.513  1.00 93.26           C
ATOM    161  C   LEU    21      64.286   9.412  15.980  1.00 93.26           C
ATOM    162  O   LEU    21      63.409  10.263  15.820  1.00 93.26           O
ATOM    163  N   GLU    22      64.917   8.832  14.949  1.00143.22           N
ATOM    164  CA  GLU    22      64.622   9.238  13.613  1.00143.22           C
ATOM    165  CB  GLU    22      65.410   8.461  12.540  1.00143.22           C
ATOM    166  CG  GLU    22      66.799   9.032  12.235  1.00143.22           C
ATOM    167  CD  GLU    22      67.623   9.088  13.511  1.00143.22           C
ATOM    168  OE1 GLU    22      68.303   8.078  13.834  1.00143.22           O
ATOM    169  OE2 GLU    22      67.586  10.157  14.176  1.00143.22           O
ATOM    170  C   GLU    22      63.175   9.021  13.358  1.00143.22           C
ATOM    171  O   GLU    22      62.549   9.887  12.769  1.00143.22           O
ATOM    172  N   GLU    23      62.587   7.915  13.849  1.00104.54           N
ATOM    173  CA  GLU    23      61.226   7.554  13.542  1.00104.54           C
ATOM    174  CB  GLU    23      60.756   6.351  14.379  1.00104.54           C
ATOM    175  CG  GLU    23      61.651   5.114  14.275  1.00104.54           C
ATOM    176  CD  GLU    23      61.314   4.347  13.009  1.00104.54           C
ATOM    177  OE1 GLU    23      60.437   4.818  12.236  1.00104.54           O
ATOM    178  OE2 GLU    23      61.934   3.270  12.802  1.00104.54           O
ATOM    179  C   GLU    23      60.321   8.677  13.923  1.00104.54           C
ATOM    180  O   GLU    23      59.453   9.077  13.148  1.00104.54           O
ATOM    181  N   GLN    24      60.536   9.255  15.114  1.00103.15           N
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ATOM    182  CA  GLN    24      59.661  10.282  15.584  1.00103.15           C
ATOM    183  CB  GLN    24      60.014  10.807  16.984  1.00103.15           C
ATOM    184  CG  GLN    24      58.925  11.705  17.575  1.00103.15           C
ATOM    185  CD  GLN    24      59.179  11.800  19.072  1.00103.15           C
ATOM    186  OE1 GLN    24      60.143  11.232  19.582  1.00103.15           O
ATOM    187  NE2 GLN    24      58.283  12.517  19.802  1.00103.15           N
ATOM    188  C   GLN    24      59.725  11.391  14.590  1.00103.15           C
ATOM    189  O   GLN    24      58.755  12.119  14.404  1.00103.15           O
ATOM    190  N   LYS    25      60.873  11.543  13.907  1.00127.20           N
ATOM    191  CA  LYS    25      61.009  12.594  12.942  1.00127.20           C
ATOM    192  CB  LYS    25      62.370  12.569  12.222  1.00127.20           C
ATOM    193  CG  LYS    25      62.730  13.881  11.523  1.00127.20           C
ATOM    194  CD  LYS    25      61.747  14.312  10.434  1.00127.20           C
ATOM    195  CE  LYS    25      62.137  15.630   9.761  1.00127.20           C
ATOM    196  NZ  LYS    25      61.167  15.965   8.695  1.00127.20           N
ATOM    197  C   LYS    25      59.922  12.451  11.909  1.00127.20           C
ATOM    198  O   LYS    25      59.299  13.458  11.586  1.00127.20           O
ATOM    199  N   PRO    26      59.637  11.297  11.351  1.00142.92           N
ATOM    200  CA  PRO    26      58.518  11.255  10.458  1.00142.92           C
ATOM    201  CD  PRO    26      60.699  10.476  10.800  1.00142.92           C
ATOM    202  CB  PRO    26      58.609   9.935   9.706  1.00142.92           C
ATOM    203  CG  PRO    26      60.124   9.744   9.577  1.00142.92           C
ATOM    204  C   PRO    26      57.200  11.528  11.093  1.00142.92           C
ATOM    205  O   PRO    26      56.299  11.992  10.397  1.00142.92           O
ATOM    206  N   LEU    27      57.048  11.246  12.393  1.00110.58           N
ATOM    207  CA  LEU    27      55.801  11.538  13.030  1.00110.58           C
ATOM    208  CB  LEU    27      55.866  11.164  14.524  1.00110.58           C
ATOM    209  CG  LEU    27      54.516  11.073  15.258  1.00110.58           C
ATOM    210  CD1 LEU    27      54.722  11.004  16.779  1.00110.58           C
ATOM    211  CD2 LEU    27      53.539  12.166  14.823  1.00110.58           C
ATOM    212  C   LEU    27      55.694  13.027  12.909  1.00110.58           C
ATOM    213  O   LEU    27      54.648  13.581  12.573  1.00110.58           O
ATOM    214  N   PHE    28      56.840  13.695  13.144  1.00151.29           N
ATOM    215  CA  PHE    28      57.008  15.121  13.123  1.00151.29           C
ATOM    216  CB  PHE    28      58.466  15.509  13.428  1.00151.29           C
ATOM    217  CG  PHE    28      58.630  16.985  13.340  1.00151.29           C
ATOM    218  CD1 PHE    28      58.917  17.576  12.131  1.00151.29           C
ATOM    219  CD2 PHE    28      58.502  17.775  14.457  1.00151.29           C
ATOM    220  CE1 PHE    28      59.075  18.938  12.037  1.00151.29           C
ATOM    221  CE2 PHE    28      58.661  19.137  14.367  1.00151.29           C
ATOM    222  CZ  PHE    28      58.948  19.722  13.158  1.00151.29           C
ATOM    223  C   PHE    28      56.730  15.619  11.747  1.00151.29           C
ATOM    224  O   PHE    28      55.959  16.556  11.554  1.00151.29           O
ATOM    225  N   GLY    29      57.354  14.981  10.744  1.00 20.12           N
ATOM    226  CA  GLY    29      57.199  15.432   9.399  1.00 20.12           C
ATOM    227  C   GLY    29      55.760  15.290   9.043  1.00 20.12           C
ATOM    228  O   GLY    29      55.175  16.173   8.421  1.00 20.12           O
ATOM    229  N   SER    30      55.145  14.169   9.454  1.00 83.30           N
ATOM    230  CA  SER    30      53.786  13.911   9.086  1.00 83.30           C
ATOM    231  CB  SER    30      53.255  12.591   9.669  1.00 83.30           C
ATOM    232  OG  SER    30      53.981  11.492   9.139  1.00 83.30           O
ATOM    233  C   SER    30      52.913  15.008   9.607  1.00 83.30           C
ATOM    234  O   SER    30      52.157  15.621   8.855  1.00 83.30           O
ATOM    235  N   PHE    31      53.027  15.319  10.910  1.00 68.55           N
ATOM    236  CA  PHE    31      52.173  16.319  11.479  1.00 68.55           C
ATOM    237  CB  PHE    31      52.282  16.465  13.005  1.00 68.55           C
ATOM    238  CG  PHE    31      51.359  15.443  13.575  1.00 68.55           C
ATOM    239  CD1 PHE    31      51.700  14.113  13.606  1.00 68.55           C
ATOM    240  CD2 PHE    31      50.136  15.824  14.077  1.00 68.55           C
ATOM    241  CE1 PHE    31      50.840  13.178  14.133  1.00 68.55           C
ATOM    242  CE2 PHE    31      49.269  14.895  14.605  1.00 68.55           C
ATOM    243  CZ  PHE    31      49.621  13.567  14.634  1.00 68.55           C
ATOM    244  C   PHE    31      52.420  17.639  10.832  1.00 68.55           C
ATOM    245  O   PHE    31      51.494  18.430  10.664  1.00 68.55           O
ATOM    246  N   LEU    32      53.680  17.928  10.467  1.00 95.18           N
ATOM    247  CA  LEU    32      53.978  19.199   9.875  1.00 95.18           C
ATOM    248  CB  LEU    32      55.485  19.357   9.584  1.00 95.18           C
ATOM    249  CG  LEU    32      55.921  20.717   8.992  1.00 95.18           C
ATOM    250  CD1 LEU    32      55.471  20.906   7.533  1.00 95.18           C
ATOM    251  CD2 LEU    32      55.490  21.876   9.904  1.00 95.18           C
ATOM    252  C   LEU    32      53.221  19.337   8.586  1.00 95.18           C
ATOM    253  O   LEU    32      52.593  20.367   8.342  1.00 95.18           O
ATOM    254  N   PHE    33      53.233  18.294   7.734  1.00 39.47           N
ATOM    255  CA  PHE    33      52.592  18.386   6.450  1.00 39.47           C
ATOM    256  CB  PHE    33      52.818  17.155   5.553  1.00 39.47           C
ATOM    257  CG  PHE    33      54.208  17.236   5.021  1.00 39.47           C
ATOM    258  CD1 PHE    33      55.275  16.771   5.752  1.00 39.47           C
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ATOM    259  CD2 PHE    33      54.446  17.783   3.781  1.00 39.47           C
ATOM    260  CE1 PHE    33      56.556  16.848   5.260  1.00 39.47           C
ATOM    261  CE2 PHE    33      55.724  17.863   3.281  1.00 39.47           C
ATOM    262  CZ  PHE    33      56.783  17.396   4.021  1.00 39.47           C
ATOM    263  C   PHE    33      51.119  18.570   6.615  1.00 39.47           C
ATOM    264  O   PHE    33      50.514  19.381   5.916  1.00 39.47           O
ATOM    265  N   MET    34      50.497  17.825   7.546  1.00105.69           N
ATOM    266  CA  MET    34      49.075  17.914   7.699  1.00105.69           C
ATOM    267  CB  MET    34      48.486  16.865   8.655  1.00105.69           C
ATOM    268  CG  MET    34      48.417  15.490   7.985  1.00105.69           C
ATOM    269  SD  MET    34      47.284  15.442   6.559  1.00105.69           S
ATOM    270  CE  MET    34      47.949  13.918   5.827  1.00105.69           C
ATOM    271  C   MET    34      48.687  19.289   8.138  1.00105.69           C
ATOM    272  O   MET    34      47.649  19.805   7.731  1.00105.69           O
ATOM    273  N   TYR    35      49.511  19.923   8.987  1.00 94.24           N
ATOM    274  CA  TYR    35      49.235  21.251   9.455  1.00 94.24           C
ATOM    275  CB  TYR    35      50.344  21.746  10.403  1.00 94.24           C
ATOM    276  CG  TYR    35      50.064  23.143  10.840  1.00 94.24           C
ATOM    277  CD1 TYR    35      50.517  24.208  10.096  1.00 94.24           C
ATOM    278  CD2 TYR    35      49.355  23.392  11.991  1.00 94.24           C
ATOM    279  CE1 TYR    35      50.265  25.500  10.492  1.00 94.24           C
ATOM    280  CE2 TYR    35      49.099  24.682  12.394  1.00 94.24           C
ATOM    281  CZ  TYR    35      49.555  25.738  11.644  1.00 94.24           C
ATOM    282  OH  TYR    35      49.295  27.063  12.055  1.00 94.24           O
ATOM    283  C   TYR    35      49.220  22.166   8.272  1.00 94.24           C
ATOM    284  O   TYR    35      48.354  23.030   8.150  1.00 94.24           O
ATOM    285  N   LEU    36      50.188  21.990   7.355  1.00 99.30           N
ATOM    286  CA  LEU    36      50.295  22.872   6.230  1.00 99.30           C
ATOM    287  CB  LEU    36      51.530  22.549   5.360  1.00 99.30           C
ATOM    288  CG  LEU    36      51.777  23.490   4.157  1.00 99.30           C
ATOM    289  CD1 LEU    36      50.740  23.307   3.034  1.00 99.30           C
ATOM    290  CD2 LEU    36      51.907  24.949   4.618  1.00 99.30           C
ATOM    291  C   LEU    36      49.065  22.750   5.384  1.00 99.30           C
ATOM    292  O   LEU    36      48.508  23.760   4.960  1.00 99.30           O
ATOM    293  N   VAL    37      48.630  21.508   5.091  1.00 38.63           N
ATOM    294  CA  VAL    37      47.494  21.261   4.243  1.00 38.63           C
ATOM    295  CB  VAL    37      47.383  19.821   3.837  1.00 38.63           C
ATOM    296  CG1 VAL    37      46.091  19.639   3.022  1.00 38.63           C
ATOM    297  CG2 VAL    37      48.660  19.429   3.074  1.00 38.63           C
ATOM    298  C   VAL    37      46.199  21.630   4.904  1.00 38.63           C
ATOM    299  O   VAL    37      45.344  22.274   4.298  1.00 38.63           O
ATOM    300  N   THR    38      46.035  21.237   6.180  1.00112.81           N
ATOM    301  CA  THR    38      44.804  21.382   6.903  1.00112.81           C
ATOM    302  CB  THR    38      44.880  20.747   8.257  1.00112.81           C
ATOM    303  OG1 THR    38      43.620  20.802   8.907  1.00112.81           O
ATOM    304  CG2 THR    38      45.945  21.492   9.071  1.00112.81           C
ATOM    305  C   THR    38      44.430  22.817   7.091  1.00112.81           C
ATOM    306  O   THR    38      43.253  23.163   7.015  1.00112.81           O
ATOM    307  N   VAL    39      45.406  23.695   7.378  1.00 40.88           N
ATOM    308  CA  VAL    39      45.065  25.063   7.647  1.00 40.88           C
ATOM    309  CB  VAL    39      46.258  25.880   8.047  1.00 40.88           C
ATOM    310  CG1 VAL    39      45.814  27.340   8.235  1.00 40.88           C
ATOM    311  CG2 VAL    39      46.882  25.248   9.302  1.00 40.88           C
ATOM    312  C   VAL    39      44.458  25.726   6.444  1.00 40.88           C
ATOM    313  O   VAL    39      43.356  26.267   6.518  1.00 40.88           O
ATOM    314  N   ALA    40      45.150  25.679   5.289  1.00 34.03           N
ATOM    315  CA  ALA    40      44.695  26.396   4.129  1.00 34.03           C
ATOM    316  CB  ALA    40      45.682  26.304   2.952  1.00 34.03           C
ATOM    317  C   ALA    40      43.384  25.862   3.648  1.00 34.03           C
ATOM    318  O   ALA    40      42.463  26.624   3.357  1.00 34.03           O
ATOM    319  N   GLY    41      43.255  24.526   3.572  1.00 28.38           N
ATOM    320  CA  GLY    41      42.068  23.942   3.021  1.00 28.38           C
ATOM    321  C   GLY    41      40.879  24.275   3.863  1.00 28.38           C
ATOM    322  O   GLY    41      39.811  24.586   3.339  1.00 28.38           O
ATOM    323  N   ASN    42      41.022  24.183   5.197  1.00 47.12           N
ATOM    324  CA  ASN    42      39.920  24.433   6.082  1.00 47.12           C
ATOM    325  CB  ASN    42      40.211  24.030   7.537  1.00 47.12           C
ATOM    326  CG  ASN    42      40.215  22.511   7.608  1.00 47.12           C
ATOM    327  OD1 ASN    42      39.322  21.849   7.082  1.00 47.12           O
ATOM    328  ND2 ASN    42      41.251  21.939   8.277  1.00 47.12           N
ATOM    329  C   ASN    42      39.562  25.885   6.083  1.00 47.12           C
ATOM    330  O   ASN    42      38.386  26.239   6.126  1.00 47.12           O
ATOM    331  N   LEU    43      40.574  26.770   6.075  1.00 94.50           N
ATOM    332  CA  LEU    43      40.319  28.181   6.130  1.00 94.50           C
ATOM    333  CB  LEU    43      41.614  29.003   6.304  1.00 94.50           C
ATOM    334  CG  LEU    43      41.417  30.523   6.505  1.00 94.50           C
ATOM    335  CD1 LEU    43      40.925  31.236   5.233  1.00 94.50           C
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ATOM    336  CD2 LEU    43      40.524  30.800   7.725  1.00 94.50           C
ATOM    337  C   LEU    43      39.646  28.613   4.863  1.00 94.50           C
ATOM    338  O   LEU    43      38.704  29.403   4.886  1.00 94.50           O
ATOM    339  N   LEU    44      40.112  28.101   3.713  1.00 91.64           N
ATOM    340  CA  LEU    44      39.575  28.545   2.461  1.00 91.64           C
ATOM    341  CB  LEU    44      40.301  27.890   1.264  1.00 91.64           C
ATOM    342  CG  LEU    44      40.002  28.477  -0.136  1.00 91.64           C
ATOM    343  CD1 LEU    44      40.801  27.725  -1.212  1.00 91.64           C
ATOM    344  CD2 LEU    44      38.505  28.530  -0.470  1.00 91.64           C
ATOM    345  C   LEU    44      38.130  28.157   2.420  1.00 91.64           C
ATOM    346  O   LEU    44      37.274  28.957   2.044  1.00 91.64           O
ATOM    347  N   ILE    45      37.818  26.919   2.840  1.00103.41           N
ATOM    348  CA  ILE    45      36.469  26.448   2.779  1.00103.41           C
ATOM    349  CB  ILE    45      36.343  24.982   3.103  1.00103.41           C
ATOM    350  CG2 ILE    45      37.089  24.205   2.008  1.00103.41           C
ATOM    351  CG1 ILE    45      36.833  24.659   4.518  1.00103.41           C
ATOM    352  CD1 ILE    45      36.708  23.176   4.866  1.00103.41           C
ATOM    353  C   ILE    45      35.602  27.294   3.656  1.00103.41           C
ATOM    354  O   ILE    45      34.484  27.637   3.276  1.00103.41           O
ATOM    355  N   ILE    46      36.088  27.666   4.856  1.00129.03           N
ATOM    356  CA  ILE    46      35.282  28.470   5.726  1.00129.03           C
ATOM    357  CB  ILE    46      35.861  28.624   7.113  1.00129.03           C
ATOM    358  CG2 ILE    46      37.048  29.595   7.053  1.00129.03           C
ATOM    359  CG1 ILE    46      34.783  29.061   8.121  1.00129.03           C
ATOM    360  CD1 ILE    46      34.204  30.450   7.864  1.00129.03           C
ATOM    361  C   ILE    46      35.075  29.826   5.108  1.00129.03           C
ATOM    362  O   ILE    46      33.972  30.368   5.135  1.00129.03           O
ATOM    363  N   LEU    47      36.128  30.414   4.509  1.00 75.50           N
ATOM    364  CA  LEU    47      36.011  31.743   3.975  1.00 75.50           C
ATOM    365  CB  LEU    47      37.356  32.270   3.429  1.00 75.50           C
ATOM    366  CG  LEU    47      37.337  33.713   2.876  1.00 75.50           C
ATOM    367  CD1 LEU    47      36.604  33.828   1.528  1.00 75.50           C
ATOM    368  CD2 LEU    47      36.800  34.695   3.929  1.00 75.50           C
ATOM    369  C   LEU    47      35.000  31.761   2.868  1.00 75.50           C
ATOM    370  O   LEU    47      34.156  32.653   2.811  1.00 75.50           O
ATOM    371  N   VAL    48      35.046  30.771   1.959  1.00 41.06           N
ATOM    372  CA  VAL    48      34.149  30.793   0.839  1.00 41.06           C
ATOM    373  CB  VAL    48      34.407  29.689  -0.140  1.00 41.06           C
ATOM    374  CG1 VAL    48      33.293  29.705  -1.203  1.00 41.06           C
ATOM    375  CG2 VAL    48      35.818  29.897  -0.719  1.00 41.06           C
ATOM    376  C   VAL    48      32.730  30.683   1.303  1.00 41.06           C
ATOM    377  O   VAL    48      31.863  31.408   0.817  1.00 41.06           O
ATOM    378  N   ILE    49      32.445  29.801   2.279  1.00 90.73           N
ATOM    379  CA  ILE    49      31.072  29.618   2.660  1.00 90.73           C
ATOM    380  CB  ILE    49      30.860  28.585   3.729  1.00 90.73           C
ATOM    381  CG2 ILE    49      31.597  29.014   5.005  1.00 90.73           C
ATOM    382  CG1 ILE    49      29.355  28.374   3.940  1.00 90.73           C
ATOM    383  CD1 ILE    49      29.039  27.255   4.926  1.00 90.73           C
ATOM    384  C   ILE    49      30.504  30.903   3.173  1.00 90.73           C
ATOM    385  O   ILE    49      29.372  31.258   2.846  1.00 90.73           O
ATOM    386  N   ILE    50      31.263  31.636   4.005  1.00 85.39           N
ATOM    387  CA  ILE    50      30.737  32.850   4.562  1.00 85.39           C
ATOM    388  CB  ILE    50      31.641  33.462   5.595  1.00 85.39           C
ATOM    389  CG2 ILE    50      31.777  32.464   6.757  1.00 85.39           C
ATOM    390  CG1 ILE    50      32.987  33.874   4.975  1.00 85.39           C
ATOM    391  CD1 ILE    50      33.830  34.766   5.885  1.00 85.39           C
ATOM    392  C   ILE    50      30.516  33.870   3.487  1.00 85.39           C
ATOM    393  O   ILE    50      29.461  34.500   3.427  1.00 85.39           O
ATOM    394  N   THR    51      31.497  34.036   2.579  1.00100.54           N
ATOM    395  CA  THR    51      31.425  35.080   1.597  1.00100.54           C
ATOM    396  CB  THR    51      32.641  35.134   0.714  1.00100.54           C
ATOM    397  OG1 THR    51      32.584  36.277  -0.127  1.00100.54           O
ATOM    398  CG2 THR    51      32.723  33.850  -0.128  1.00100.54           C
ATOM    399  C   THR    51      30.217  34.905   0.731  1.00100.54           C
ATOM    400  O   THR    51      29.506  35.872   0.463  1.00100.54           O
ATOM    401  N   ASP    52      29.934  33.672   0.273  1.00 99.80           N
ATOM    402  CA  ASP    52      28.793  33.495  -0.578  1.00 99.80           C
ATOM    403  CB  ASP    52      28.964  32.352  -1.607  1.00 99.80           C
ATOM    404  CG  ASP    52      29.409  31.062  -0.929  1.00 99.80           C
ATOM    405  OD1 ASP    52      29.405  31.001   0.327  1.00 99.80           O
ATOM    406  OD2 ASP    52      29.785  30.116  -1.672  1.00 99.80           O
ATOM    407  C   ASP    52      27.562  33.338   0.264  1.00 99.80           C
ATOM    408  O   ASP    52      27.307  32.306   0.882  1.00 99.80           O
ATOM    409  N   THR    53      26.732  34.396   0.257  1.00107.51           N
ATOM    410  CA  THR    53      25.564  34.505   1.080  1.00107.51           C
ATOM    411  CB  THR    53      24.839  35.802   0.880  1.00107.51           C
ATOM    412  OG1 THR    53      23.814  35.946   1.853  1.00107.51           O
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ATOM    413  CG2 THR    53      24.238  35.817  -0.536  1.00107.51           C
ATOM    414  C   THR    53      24.611  33.404   0.750  1.00107.51           C
ATOM    415  O   THR    53      23.872  32.940   1.616  1.00107.51           O
ATOM    416  N   GLN    54      24.579  32.990  -0.525  1.00102.90           N
ATOM    417  CA  GLN    54      23.653  31.993  -0.985  1.00102.90           C
ATOM    418  CB  GLN    54      23.641  31.852  -2.517  1.00102.90           C
ATOM    419  CG  GLN    54      24.964  31.370  -3.110  1.00102.90           C
ATOM    420  CD  GLN    54      24.790  31.280  -4.620  1.00102.90           C
ATOM    421  OE1 GLN    54      25.737  31.000  -5.353  1.00102.90           O
ATOM    422  NE2 GLN    54      23.542  31.527  -5.102  1.00102.90           N
ATOM    423  C   GLN    54      23.917  30.646  -0.390  1.00102.90           C
ATOM    424  O   GLN    54      22.973  29.906  -0.120  1.00102.90           O
ATOM    425  N   LEU    55      25.189  30.261  -0.163  1.00132.51           N
ATOM    426  CA  LEU    55      25.393  28.913   0.289  1.00132.51           C
ATOM    427  CB  LEU    55      26.841  28.439   0.105  1.00132.51           C
ATOM    428  CG  LEU    55      27.209  28.282  -1.382  1.00132.51           C
ATOM    429  CD1 LEU    55      27.128  29.623  -2.125  1.00132.51           C
ATOM    430  CD2 LEU    55      28.561  27.579  -1.556  1.00132.51           C
ATOM    431  C   LEU    55      25.004  28.785   1.727  1.00132.51           C
ATOM    432  O   LEU    55      25.839  28.885   2.625  1.00132.51           O
ATOM    433  N   HIS    56      23.703  28.522   1.978  1.00157.93           N
ATOM    434  CA  HIS    56      23.250  28.386   3.329  1.00157.93           C
ATOM    435  ND1 HIS    56      22.964  32.106   4.203  1.00157.93           N
ATOM    436  CG  HIS    56      23.408  30.808   4.088  1.00157.93           C
ATOM    437  CB  HIS    56      22.509  29.631   3.848  1.00157.93           C
ATOM    438  NE2 HIS    56      25.169  32.163   4.481  1.00157.93           N
ATOM    439  CD2 HIS    56      24.757  30.861   4.262  1.00157.93           C
ATOM    440  CE1 HIS    56      24.057  32.875   4.438  1.00157.93           C
ATOM    441  C   HIS    56      22.285  27.244   3.427  1.00157.93           C
ATOM    442  O   HIS    56      21.217  27.389   4.017  1.00157.93           O
ATOM    443  N   THR    57      22.626  26.062   2.879  1.00 63.03           N
ATOM    444  CA  THR    57      21.716  24.966   3.045  1.00 63.03           C
ATOM    445  CB  THR    57      21.687  23.958   1.928  1.00 63.03           C
ATOM    446  OG1 THR    57      22.883  23.195   1.906  1.00 63.03           O
ATOM    447  CG2 THR    57      21.507  24.706   0.596  1.00 63.03           C
ATOM    448  C   THR    57      22.199  24.246   4.256  1.00 63.03           C
ATOM    449  O   THR    57      23.206  24.635   4.844  1.00 63.03           O
ATOM    450  N   PRO    58      21.520  23.216   4.668  1.00 81.06           N
ATOM    451  CA  PRO    58      21.989  22.505   5.814  1.00 81.06           C
ATOM    452  CD  PRO    58      20.084  23.089   4.490  1.00 81.06           C
ATOM    453  CB  PRO    58      20.905  21.479   6.131  1.00 81.06           C
ATOM    454  CG  PRO    58      19.617  22.167   5.633  1.00 81.06           C
ATOM    455  C   PRO    58      23.345  21.951   5.523  1.00 81.06           C
ATOM    456  O   PRO    58      24.183  21.915   6.419  1.00 81.06           O
ATOM    457  N   MET    59      23.597  21.528   4.274  1.00 67.96           N
ATOM    458  CA  MET    59      24.876  20.968   3.947  1.00 67.96           C
ATOM    459  CB  MET    59      24.943  20.376   2.528  1.00 67.96           C
ATOM    460  CG  MET    59      24.075  19.128   2.346  1.00 67.96           C
ATOM    461  SD  MET    59      24.174  18.371   0.695  1.00 67.96           S
ATOM    462  CE  MET    59      25.853  17.714   0.925  1.00 67.96           C
ATOM    463  C   MET    59      25.930  22.022   4.049  1.00 67.96           C
ATOM    464  O   MET    59      27.035  21.758   4.521  1.00 67.96           O
ATOM    465  N   TYR    60      25.618  23.257   3.614  1.00104.05           N
ATOM    466  CA  TYR    60      26.624  24.275   3.645  1.00104.05           C
ATOM    467  CB  TYR    60      26.177  25.632   3.070  1.00104.05           C
ATOM    468  CG  TYR    60      25.931  25.455   1.611  1.00104.05           C
ATOM    469  CD1 TYR    60      26.953  25.558   0.699  1.00104.05           C
ATOM    470  CD2 TYR    60      24.670  25.175   1.151  1.00104.05           C
ATOM    471  CE1 TYR    60      26.703  25.388  -0.644  1.00104.05           C
ATOM    472  CE2 TYR    60      24.411  25.004  -0.186  1.00104.05           C
ATOM    473  CZ  TYR    60      25.435  25.112  -1.089  1.00104.05           C
ATOM    474  OH  TYR    60      25.184  24.938  -2.465  1.00104.05           O
ATOM    475  C   TYR    60      27.014  24.489   5.069  1.00104.05           C
ATOM    476  O   TYR    60      28.191  24.688   5.358  1.00104.05           O
ATOM    477  N   PHE    61      26.033  24.485   5.995  1.00 63.31           N
ATOM    478  CA  PHE    61      26.343  24.697   7.381  1.00 63.31           C
ATOM    479  CB  PHE    61      25.108  24.833   8.282  1.00 63.31           C
ATOM    480  CG  PHE    61      24.449  26.145   8.035  1.00 63.31           C
ATOM    481  CD1 PHE    61      24.835  27.258   8.746  1.00 63.31           C
ATOM    482  CD2 PHE    61      23.444  26.264   7.103  1.00 63.31           C
ATOM    483  CE1 PHE    61      24.231  28.473   8.530  1.00 63.31           C
ATOM    484  CE2 PHE    61      22.836  27.478   6.884  1.00 63.31           C
ATOM    485  CZ  PHE    61      23.229  28.585   7.597  1.00 63.31           C
ATOM    486  C   PHE    61      27.162  23.570   7.940  1.00 63.31           C
ATOM    487  O   PHE    61      28.178  23.816   8.587  1.00 63.31           O
ATOM    488  N   PHE    62      26.775  22.302   7.678  1.00107.87           N
ATOM    489  CA  PHE    62      27.463  21.205   8.311  1.00107.87           C
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ATOM    490  CB  PHE    62      26.992  19.793   7.904  1.00107.87           C
ATOM    491  CG  PHE    62      25.543  19.641   8.206  1.00107.87           C
ATOM    492  CD1 PHE    62      25.062  19.830   9.481  1.00107.87           C
ATOM    493  CD2 PHE    62      24.657  19.345   7.197  1.00107.87           C
ATOM    494  CE1 PHE    62      23.720  19.701   9.746  1.00107.87           C
ATOM    495  CE2 PHE    62      23.314  19.214   7.454  1.00107.87           C
ATOM    496  CZ  PHE    62      22.845  19.391   8.733  1.00107.87           C
ATOM    497  C   PHE    62      28.905  21.252   7.932  1.00107.87           C
ATOM    498  O   PHE    62      29.778  21.043   8.772  1.00107.87           O
ATOM    499  N   LEU    63      29.194  21.500   6.643  1.00112.39           N
ATOM    500  CA  LEU    63      30.556  21.547   6.199  1.00112.39           C
ATOM    501  CB  LEU    63      30.732  21.622   4.673  1.00112.39           C
ATOM    502  CG  LEU    63      30.447  20.286   3.965  1.00112.39           C
ATOM    503  CD1 LEU    63      31.423  19.195   4.431  1.00112.39           C
ATOM    504  CD2 LEU    63      28.978  19.868   4.088  1.00112.39           C
ATOM    505  C   LEU    63      31.266  22.712   6.805  1.00112.39           C
ATOM    506  O   LEU    63      32.465  22.638   7.061  1.00112.39           O
ATOM    507  N   ALA    64      30.567  23.843   7.006  1.00 27.54           N
ATOM    508  CA  ALA    64      31.225  24.973   7.594  1.00 27.54           C
ATOM    509  CB  ALA    64      30.309  26.203   7.711  1.00 27.54           C
ATOM    510  C   ALA    64      31.640  24.585   8.976  1.00 27.54           C
ATOM    511  O   ALA    64      32.755  24.871   9.407  1.00 27.54           O
ATOM    512  N   ASN    65      30.747  23.882   9.695  1.00 58.29           N
ATOM    513  CA  ASN    65      30.990  23.487  11.051  1.00 58.29           C
ATOM    514  CB  ASN    65      29.819  22.663  11.622  1.00 58.29           C
ATOM    515  CG  ASN    65      30.129  22.285  13.063  1.00 58.29           C
ATOM    516  OD1 ASN    65      30.460  23.138  13.884  1.00 58.29           O
ATOM    517  ND2 ASN    65      30.019  20.967  13.381  1.00 58.29           N
ATOM    518  C   ASN    65      32.204  22.620  11.078  1.00 58.29           C
ATOM    519  O   ASN    65      33.084  22.774  11.923  1.00 58.29           O
ATOM    520  N   LEU    66      32.287  21.699  10.113  1.00157.94           N
ATOM    521  CA  LEU    66      33.336  20.735  10.049  1.00157.94           C
ATOM    522  CB  LEU    66      33.008  19.722   8.944  1.00157.94           C
ATOM    523  CG  LEU    66      33.766  18.398   9.037  1.00157.94           C
ATOM    524  CD1 LEU    66      33.625  17.788  10.442  1.00157.94           C
ATOM    525  CD2 LEU    66      33.236  17.432   7.965  1.00157.94           C
ATOM    526  C   LEU    66      34.637  21.455   9.825  1.00157.94           C
ATOM    527  O   LEU    66      35.661  21.080  10.391  1.00157.94           O
ATOM    528  N   SER    67      34.622  22.528   9.009  1.00 80.63           N
ATOM    529  CA  SER    67      35.799  23.294   8.694  1.00 80.63           C
ATOM    530  CB  SER    67      35.479  24.475   7.763  1.00 80.63           C
ATOM    531  OG  SER    67      34.742  24.024   6.637  1.00 80.63           O
ATOM    532  C   SER    67      36.324  23.898   9.961  1.00 80.63           C
ATOM    533  O   SER    67      37.529  23.889  10.206  1.00 80.63           O
ATOM    534  N   LEU    68      35.426  24.460  10.794  1.00 87.82           N
ATOM    535  CA  LEU    68      35.849  25.075  12.021  1.00 87.82           C
ATOM    536  CB  LEU    68      34.720  25.802  12.775  1.00 87.82           C
ATOM    537  CG  LEU    68      34.330  27.162  12.163  1.00 87.82           C
ATOM    538  CD1 LEU    68      33.823  27.023  10.722  1.00 87.82           C
ATOM    539  CD2 LEU    68      33.339  27.911  13.068  1.00 87.82           C
ATOM    540  C   LEU    68      36.415  24.036  12.929  1.00 87.82           C
ATOM    541  O   LEU    68      37.446  24.254  13.563  1.00 87.82           O
ATOM    542  N   ALA    69      35.764  22.862  13.005  1.00 45.82           N
ATOM    543  CA  ALA    69      36.242  21.838  13.882  1.00 45.82           C
ATOM    544  CB  ALA    69      35.391  20.558  13.822  1.00 45.82           C
ATOM    545  C   ALA    69      37.621  21.484  13.435  1.00 45.82           C
ATOM    546  O   ALA    69      38.516  21.351  14.259  1.00 45.82           O
ATOM    547  N   ASP    70      37.840  21.372  12.113  1.00 65.54           N
ATOM    548  CA  ASP    70      39.110  20.974  11.563  1.00 65.54           C
ATOM    549  CB  ASP    70      39.131  20.997  10.023  1.00 65.54           C
ATOM    550  CG  ASP    70      38.256  19.895   9.450  1.00 65.54           C
ATOM    551  OD1 ASP    70      38.523  18.702   9.746  1.00 65.54           O
ATOM    552  OD2 ASP    70      37.323  20.234   8.676  1.00 65.54           O
ATOM    553  C   ASP    70      40.161  21.966  11.954  1.00 65.54           C
ATOM    554  O   ASP    70      41.296  21.593  12.241  1.00 65.54           O
ATOM    555  N   ALA    71      39.818  23.267  11.922  1.00 33.98           N
ATOM    556  CA  ALA    71      40.754  24.308  12.240  1.00 33.98           C
ATOM    557  CB  ALA    71      40.168  25.717  12.042  1.00 33.98           C
ATOM    558  C   ALA    71      41.147  24.184  13.669  1.00 33.98           C
ATOM    559  O   ALA    71      42.307  24.381  14.028  1.00 33.98           O
ATOM    560  N   CYS    72      40.175  23.865  14.537  1.00 50.20           N
ATOM    561  CA  CYS    72      40.511  23.739  15.916  1.00 50.20           C
ATOM    562  CB  CYS    72      39.311  23.383  16.811  1.00 50.20           C
ATOM    563  SG  CYS    72      38.092  24.726  16.917  1.00 50.20           S
ATOM    564  C   CYS    72      41.471  22.620  16.005  1.00 50.20           C
ATOM    565  O   CYS    72      42.456  22.681  16.724  1.00 50.20           O
ATOM    566  N   PHE    73      41.247  21.539  15.262  1.00165.42           N
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ATOM    567  CA  PHE    73      42.146  20.481  15.544  1.00165.42           C
ATOM    568  CB  PHE    73      41.531  19.125  15.235  1.00165.42           C
ATOM    569  CG  PHE    73      40.365  19.340  16.151  1.00165.42           C
ATOM    570  CD1 PHE    73      40.575  19.858  17.404  1.00165.42           C
ATOM    571  CD2 PHE    73      39.065  19.181  15.767  1.00165.42           C
ATOM    572  CE1 PHE    73      39.539  20.107  18.274  1.00165.42           C
ATOM    573  CE2 PHE    73      38.010  19.417  16.616  1.00165.42           C
ATOM    574  CZ  PHE    73      38.244  19.877  17.886  1.00165.42           C
ATOM    575  C   PHE    73      43.527  20.776  15.063  1.00165.42           C
ATOM    576  O   PHE    73      44.498  20.507  15.767  1.00165.42           O
ATOM    577  N   VAL    74      43.676  21.392  13.881  1.00112.57           N
ATOM    578  CA  VAL    74      45.010  21.688  13.461  1.00112.57           C
ATOM    579  CB  VAL    74      45.074  22.313  12.098  1.00112.57           C
ATOM    580  CG1 VAL    74      44.268  23.622  12.076  1.00112.57           C
ATOM    581  CG2 VAL    74      46.555  22.504  11.763  1.00112.57           C
ATOM    582  C   VAL    74      45.657  22.618  14.449  1.00112.57           C
ATOM    583  O   VAL    74      46.771  22.370  14.909  1.00112.57           O
ATOM    584  N   SER    75      44.966  23.715  14.811  1.00 96.11           N
ATOM    585  CA  SER    75      45.529  24.705  15.684  1.00 96.11           C
ATOM    586  CB  SER    75      44.675  25.983  15.755  1.00 96.11           C
ATOM    587  OG  SER    75      45.278  26.922  16.632  1.00 96.11           O
ATOM    588  C   SER    75      45.688  24.205  17.083  1.00 96.11           C
ATOM    589  O   SER    75      46.762  24.324  17.660  1.00 96.11           O
ATOM    590  N   THR    76      44.614  23.708  17.723  1.00179.20           N
ATOM    591  CA  THR    76      44.798  23.320  19.087  1.00179.20           C
ATOM    592  CB  THR    76      43.599  23.511  19.980  1.00179.20           C
ATOM    593  OG1 THR    76      43.908  23.096  21.304  1.00179.20           O
ATOM    594  CG2 THR    76      42.386  22.777  19.433  1.00179.20           C
ATOM    595  C   THR    76      45.509  22.014  19.344  1.00179.20           C
ATOM    596  O   THR    76      46.418  21.987  20.169  1.00179.20           O
ATOM    597  N   THR    77      45.113  20.876  18.728  1.00137.22           N
ATOM    598  CA  THR    77      45.814  19.636  19.018  1.00137.22           C
ATOM    599  CB  THR    77      44.976  18.406  18.801  1.00137.22           C
ATOM    600  OG1 THR    77      45.694  17.261  19.225  1.00137.22           O
ATOM    601  CG2 THR    77      44.622  18.260  17.315  1.00137.22           C
ATOM    602  C   THR    77      47.078  19.444  18.236  1.00137.22           C
ATOM    603  O   THR    77      48.117  19.078  18.786  1.00137.22           O
ATOM    604  N   VAL    78      47.016  19.712  16.918  1.00 68.17           N
ATOM    605  CA  VAL    78      48.102  19.443  16.018  1.00 68.17           C
ATOM    606  CB  VAL    78      47.787  19.839  14.605  1.00 68.17           C
ATOM    607  CG1 VAL    78      49.034  19.593  13.738  1.00 68.17           C
ATOM    608  CG2 VAL    78      46.542  19.062  14.143  1.00 68.17           C
ATOM    609  C   VAL    78      49.380  20.139  16.397  1.00 68.17           C
ATOM    610  O   VAL    78      50.412  19.485  16.257  1.00 68.17           O
ATOM    611  N   PRO    79      49.462  21.395  16.797  1.00 91.97           N
ATOM    612  CA  PRO    79      50.754  21.936  17.097  1.00 91.97           C
ATOM    613  CD  PRO    79      48.456  22.082  17.592  1.00 91.97           C
ATOM    614  CB  PRO    79      50.515  23.344  17.610  1.00 91.97           C
ATOM    615  CG  PRO    79      49.213  23.155  18.396  1.00 91.97           C
ATOM    616  C   PRO    79      51.362  21.145  18.211  1.00 91.97           C
ATOM    617  O   PRO    79      52.582  21.000  18.242  1.00 91.97           O
ATOM    618  N   LYS    80      50.530  20.672  19.158  1.00143.07           N
ATOM    619  CA  LYS    80      51.012  19.960  20.304  1.00143.07           C
ATOM    620  CB  LYS    80      49.891  19.621  21.301  1.00143.07           C
ATOM    621  CG  LYS    80      50.394  19.390  22.729  1.00143.07           C
ATOM    622  CD  LYS    80      51.543  18.387  22.836  1.00143.07           C
ATOM    623  CE  LYS    80      52.914  19.064  22.915  1.00143.07           C
ATOM    624  NZ  LYS    80      53.983  18.048  23.019  1.00143.07           N
ATOM    625  C   LYS    80      51.599  18.661  19.854  1.00143.07           C
ATOM    626  O   LYS    80      52.676  18.269  20.297  1.00143.07           O
ATOM    627  N   MET    81      50.897  17.958  18.946  1.00121.92           N
ATOM    628  CA  MET    81      51.340  16.668  18.502  1.00121.92           C
ATOM    629  CB  MET    81      50.355  16.027  17.507  1.00121.92           C
ATOM    630  CG  MET    81      50.416  14.498  17.415  1.00121.92           C
ATOM    631  SD  MET    81      52.052  13.772  17.102  1.00121.92           S
ATOM    632  CE  MET    81      52.516  13.702  18.858  1.00121.92           C
ATOM    633  C   MET    81      52.642  16.847  17.784  1.00121.92           C
ATOM    634  O   MET    81      53.569  16.057  17.939  1.00121.92           O
ATOM    635  N   LEU    82      52.745  17.904  16.960  1.00103.26           N
ATOM    636  CA  LEU    82      53.944  18.133  16.208  1.00103.26           C
ATOM    637  CB  LEU    82      53.765  19.293  15.207  1.00103.26           C
ATOM    638  CG  LEU    82      54.998  19.629  14.345  1.00103.26           C
ATOM    639  CD1 LEU    82      56.090  20.338  15.156  1.00103.26           C
ATOM    640  CD2 LEU    82      55.515  18.384  13.605  1.00103.26           C
ATOM    641  C   LEU    82      55.055  18.452  17.167  1.00103.26           C
ATOM    642  O   LEU    82      56.167  17.946  17.028  1.00103.26           O
ATOM    643  N   ALA    83      54.774  19.300  18.174  1.00 32.15           N
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ATOM    644  CA  ALA    83      55.772  19.684  19.130  1.00 32.15           C
ATOM    645  CB  ALA    83      55.253  20.716  20.147  1.00 32.15           C
ATOM    646  C   ALA    83      56.195  18.472  19.897  1.00 32.15           C
ATOM    647  O   ALA    83      57.375  18.277  20.185  1.00 32.15           O
ATOM    648  N   ASN    84      55.210  17.625  20.239  1.00 91.63           N
ATOM    649  CA  ASN    84      55.371  16.414  20.990  1.00 91.63           C
ATOM    650  CB  ASN    84      54.020  15.735  21.261  1.00 91.63           C
ATOM    651  CG  ASN    84      54.201  14.642  22.300  1.00 91.63           C
ATOM    652  OD1 ASN    84      55.319  14.282  22.664  1.00 91.63           O
ATOM    653  ND2 ASN    84      53.058  14.090  22.787  1.00 91.63           N
ATOM    654  C   ASN    84      56.188  15.477  20.170  1.00 91.63           C
ATOM    655  O   ASN    84      56.876  14.601  20.684  1.00 91.63           O
ATOM    656  N   ILE    85      56.048  15.564  18.846  1.00 68.24           N
ATOM    657  CA  ILE    85      56.844  14.743  17.995  1.00 68.24           C
ATOM    658  CB  ILE    85      56.465  14.877  16.571  1.00 68.24           C
ATOM    659  CG2 ILE    85      57.540  14.092  15.836  1.00 68.24           C
ATOM    660  CG1 ILE    85      55.026  14.425  16.286  1.00 68.24           C
ATOM    661  CD1 ILE    85      54.498  14.947  14.949  1.00 68.24           C
ATOM    662  C   ILE    85      58.275  15.193  18.026  1.00 68.24           C
ATOM    663  O   ILE    85      59.191  14.380  18.135  1.00 68.24           O
ATOM    664  N   GLN    86      58.495  16.521  17.921  1.00110.66           N
ATOM    665  CA  GLN    86      59.822  17.062  17.786  1.00110.66           C
ATOM    666  CB  GLN    86      59.827  18.593  17.641  1.00110.66           C
ATOM    667  CG  GLN    86      61.233  19.181  17.497  1.00110.66           C
ATOM    668  CD  GLN    86      61.104  20.691  17.363  1.00110.66           C
ATOM    669  OE1 GLN    86      61.743  21.309  16.514  1.00110.66           O
ATOM    670  NE2 GLN    86      60.258  21.307  18.234  1.00110.66           N
ATOM    671  C   GLN    86      60.629  16.730  18.995  1.00110.66           C
ATOM    672  O   GLN    86      61.765  16.271  18.888  1.00110.66           O
ATOM    673  N   ILE    87      60.062  16.953  20.191  1.00317.70           N
ATOM    674  CA  ILE    87      60.758  16.571  21.378  1.00317.70           C
ATOM    675  CB  ILE    87      60.729  17.613  22.470  1.00317.70           C
ATOM    676  CG2 ILE    87      59.274  18.030  22.747  1.00317.70           C
ATOM    677  CG1 ILE    87      61.500  17.115  23.700  1.00317.70           C
ATOM    678  CD1 ILE    87      63.002  16.976  23.458  1.00317.70           C
ATOM    679  C   ILE    87      60.013  15.363  21.804  1.00317.70           C
ATOM    680  O   ILE    87      58.811  15.438  22.014  1.00317.70           O
ATOM    681  N   GLN    88      60.711  14.235  22.008  1.00 84.60           N
ATOM    682  CA  GLN    88      60.066  12.958  22.115  1.00 84.60           C
ATOM    683  CB  GLN    88      61.067  11.832  22.428  1.00 84.60           C
ATOM    684  CG  GLN    88      62.165  11.741  21.362  1.00 84.60           C
ATOM    685  CD  GLN    88      62.931  10.441  21.540  1.00 84.60           C
ATOM    686  OE1 GLN    88      64.158  10.432  21.627  1.00 84.60           O
ATOM    687  NE2 GLN    88      62.183   9.306  21.570  1.00 84.60           N
ATOM    688  C   GLN    88      58.992  12.978  23.156  1.00 84.60           C
ATOM    689  O   GLN    88      57.922  12.408  22.947  1.00 84.60           O
ATOM    690  N   SER    89      59.220  13.649  24.292  1.00 64.96           N
ATOM    691  CA  SER    89      58.192  13.678  25.292  1.00 64.96           C
ATOM    692  CB  SER    89      58.724  13.811  26.727  1.00 64.96           C
ATOM    693  OG  SER    89      59.352  15.073  26.900  1.00 64.96           O
ATOM    694  C   SER    89      57.303  14.857  25.072  1.00 64.96           C
ATOM    695  O   SER    89      57.525  15.680  24.186  1.00 64.96           O
ATOM    696  N   GLN    90      56.236  14.945  25.891  1.00 65.89           N
ATOM    697  CA  GLN    90      55.348  16.065  25.824  1.00 65.89           C
ATOM    698  CB  GLN    90      53.948  15.742  26.365  1.00 65.89           C
ATOM    699  CG  GLN    90      53.256  14.614  25.598  1.00 65.89           C
ATOM    700  CD  GLN    90      51.901  14.367  26.238  1.00 65.89           C
ATOM    701  OE1 GLN    90      50.868  14.766  25.703  1.00 65.89           O
ATOM    702  NE2 GLN    90      51.901  13.689  27.418  1.00 65.89           N
ATOM    703  C   GLN    90      55.945  17.085  26.737  1.00 65.89           C
ATOM    704  O   GLN    90      55.991  16.879  27.949  1.00 65.89           O
ATOM    705  N   ALA    91      56.395  18.227  26.179  1.00 59.31           N
ATOM    706  CA  ALA    91      57.049  19.215  26.989  1.00 59.31           C
ATOM    707  CB  ALA    91      57.434  20.477  26.199  1.00 59.31           C
ATOM    708  C   ALA    91      56.071  19.619  28.033  1.00 59.31           C
ATOM    709  O   ALA    91      56.403  19.697  29.215  1.00 59.31           O
ATOM    710  N   ILE    92      54.816  19.857  27.624  1.00261.95           N
ATOM    711  CA  ILE    92      53.831  20.103  28.625  1.00261.95           C
ATOM    712  CB  ILE    92      52.818  21.152  28.236  1.00261.95           C
ATOM    713  CG2 ILE    92      53.562  22.494  28.141  1.00261.95           C
ATOM    714  CG1 ILE    92      52.056  20.784  26.952  1.00261.95           C
ATOM    715  CD1 ILE    92      50.866  21.699  26.667  1.00261.95           C
ATOM    716  C   ILE    92      53.205  18.765  28.805  1.00261.95           C
ATOM    717  O   ILE    92      52.489  18.273  27.940  1.00261.95           O
ATOM    718  N   SER    93      53.511  18.113  29.940  1.00121.43           N
ATOM    719  CA  SER    93      53.119  16.746  30.115  1.00121.43           C
ATOM    720  CB  SER    93      53.484  16.197  31.505  1.00121.43           C
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ATOM    721  OG  SER    93      53.066  14.845  31.619  1.00121.43           O
ATOM    722  C   SER    93      51.645  16.557  29.938  1.00121.43           C
ATOM    723  O   SER    93      51.157  16.318  28.835  1.00121.43           O
ATOM    724  N   TYR    94      50.891  16.686  31.039  1.00 97.74           N
ATOM    725  CA  TYR    94      49.488  16.403  31.015  1.00 97.74           C
ATOM    726  CB  TYR    94      48.866  16.364  32.420  1.00 97.74           C
ATOM    727  CG  TYR    94      49.448  15.166  33.088  1.00 97.74           C
ATOM    728  CD1 TYR    94      48.909  13.918  32.870  1.00 97.74           C
ATOM    729  CD2 TYR    94      50.538  15.283  33.922  1.00 97.74           C
ATOM    730  CE1 TYR    94      49.441  12.806  33.478  1.00 97.74           C
ATOM    731  CE2 TYR    94      51.075  14.173  34.532  1.00 97.74           C
ATOM    732  CZ  TYR    94      50.527  12.933  34.310  1.00 97.74           C
ATOM    733  OH  TYR    94      51.076  11.793  34.935  1.00 97.74           O
ATOM    734  C   TYR    94      48.758  17.402  30.183  1.00 97.74           C
ATOM    735  O   TYR    94      47.861  17.046  29.418  1.00 97.74           O
ATOM    736  N   SER    95      49.131  18.686  30.306  1.00 30.13           N
ATOM    737  CA  SER    95      48.411  19.714  29.616  1.00 30.13           C
ATOM    738  CB  SER    95      49.001  21.112  29.860  1.00 30.13           C
ATOM    739  OG  SER    95      48.913  21.443  31.238  1.00 30.13           O
ATOM    740  C   SER    95      48.476  19.455  28.147  1.00 30.13           C
ATOM    741  O   SER    95      47.458  19.487  27.456  1.00 30.13           O
ATOM    742  N   GLY    96      49.683  19.163  27.635  1.00 26.85           N
ATOM    743  CA  GLY    96      49.847  18.967  26.226  1.00 26.85           C
ATOM    744  C   GLY    96      49.045  17.785  25.804  1.00 26.85           C
ATOM    745  O   GLY    96      48.484  17.762  24.711  1.00 26.85           O
ATOM    746  N   CYS    97      49.007  16.753  26.663  1.00 54.23           N
ATOM    747  CA  CYS    97      48.320  15.542  26.349  1.00 54.23           C
ATOM    748  CB  CYS    97      48.559  14.439  27.394  1.00 54.23           C
ATOM    749  SG  CYS    97      48.037  12.830  26.747  1.00 54.23           S
ATOM    750  C   CYS    97      46.853  15.816  26.267  1.00 54.23           C
ATOM    751  O   CYS    97      46.150  15.224  25.449  1.00 54.23           O
ATOM    752  N   LEU    98      46.355  16.714  27.138  1.00131.40           N
ATOM    753  CA  LEU    98      44.964  17.062  27.199  1.00131.40           C
ATOM    754  CB  LEU    98      44.698  18.082  28.320  1.00131.40           C
ATOM    755  CG  LEU    98      43.232  18.529  28.465  1.00131.40           C
ATOM    756  CD1 LEU    98      42.354  17.390  29.013  1.00131.40           C
ATOM    757  CD2 LEU    98      43.119  19.815  29.297  1.00131.40           C
ATOM    758  C   LEU    98      44.574  17.723  25.913  1.00131.40           C
ATOM    759  O   LEU    98      43.565  17.377  25.300  1.00131.40           O
ATOM    760  N   LEU    99      45.390  18.698  25.460  1.00 43.29           N
ATOM    761  CA  LEU    99      45.068  19.434  24.277  1.00 43.29           C
ATOM    762  CB  LEU    99      46.092  20.545  23.974  1.00 43.29           C
ATOM    763  CG  LEU    99      46.154  21.639  25.055  1.00 43.29           C
ATOM    764  CD1 LEU    99      47.190  22.718  24.700  1.00 43.29           C
ATOM    765  CD2 LEU    99      44.762  22.224  25.344  1.00 43.29           C
ATOM    766  C   LEU    99      45.078  18.498  23.118  1.00 43.29           C
ATOM    767  O   LEU    99      44.169  18.501  22.288  1.00 43.29           O
ATOM    768  N   GLN   100      46.104  17.639  23.045  1.00104.05           N
ATOM    769  CA  GLN   100      46.205  16.778  21.914  1.00104.05           C
ATOM    770  CB  GLN   100      47.461  15.900  21.930  1.00104.05           C
ATOM    771  CG  GLN   100      47.599  15.083  20.648  1.00104.05           C
ATOM    772  CD  GLN   100      48.815  14.193  20.794  1.00104.05           C
ATOM    773  OE1 GLN   100      48.801  13.044  20.361  1.00104.05           O
ATOM    774  NE2 GLN   100      49.897  14.730  21.419  1.00104.05           N
ATOM    775  C   GLN   100      45.023  15.859  21.865  1.00104.05           C
ATOM    776  O   GLN   100      44.403  15.694  20.817  1.00104.05           O
ATOM    777  N   LEU   101      44.673  15.237  23.006  1.00147.44           N
ATOM    778  CA  LEU   101      43.599  14.286  23.041  1.00147.44           C
ATOM    779  CB  LEU   101      43.571  13.515  24.376  1.00147.44           C
ATOM    780  CG  LEU   101      42.375  12.562  24.561  1.00147.44           C
ATOM    781  CD1 LEU   101      41.109  13.316  24.996  1.00147.44           C
ATOM    782  CD2 LEU   101      42.139  11.724  23.295  1.00147.44           C
ATOM    783  C   LEU   101      42.254  14.911  22.805  1.00147.44           C
ATOM    784  O   LEU   101      41.486  14.436  21.969  1.00147.44           O
ATOM    785  N   TYR   102      41.945  16.019  23.505  1.00 65.59           N
ATOM    786  CA  TYR   102      40.621  16.579  23.468  1.00 65.59           C
ATOM    787  CB  TYR   102      40.500  17.805  24.392  1.00 65.59           C
ATOM    788  CG  TYR   102      39.138  18.398  24.262  1.00 65.59           C
ATOM    789  CD1 TYR   102      38.074  17.891  24.971  1.00 65.59           C
ATOM    790  CD2 TYR   102      38.929  19.477  23.434  1.00 65.59           C
ATOM    791  CE1 TYR   102      36.823  18.448  24.848  1.00 65.59           C
ATOM    792  CE2 TYR   102      37.679  20.038  23.308  1.00 65.59           C
ATOM    793  CZ  TYR   102      36.622  19.523  24.016  1.00 65.59           C
ATOM    794  OH  TYR   102      35.338  20.094  23.891  1.00 65.59           O
ATOM    795  C   TYR   102      40.267  17.019  22.090  1.00 65.59           C
ATOM    796  O   TYR   102      39.202  16.703  21.562  1.00 65.59           O
ATOM    797  N   PHE   103      41.182  17.753  21.457  1.00 91.33           N
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ATOM    798  CA  PHE   103      40.908  18.337  20.191  1.00 91.33           C
ATOM    799  CB  PHE   103      41.983  19.383  19.913  1.00 91.33           C
ATOM    800  CG  PHE   103      41.656  20.393  20.964  1.00 91.33           C
ATOM    801  CD1 PHE   103      40.469  21.090  20.895  1.00 91.33           C
ATOM    802  CD2 PHE   103      42.518  20.666  22.000  1.00 91.33           C
ATOM    803  CE1 PHE   103      40.142  22.028  21.846  1.00 91.33           C
ATOM    804  CE2 PHE   103      42.198  21.602  22.955  1.00 91.33           C
ATOM    805  CZ  PHE   103      41.009  22.285  22.880  1.00 91.33           C
ATOM    806  C   PHE   103      40.734  17.284  19.133  1.00 91.33           C
ATOM    807  O   PHE   103      39.850  17.386  18.284  1.00 91.33           O
ATOM    808  N   PHE   104      41.549  16.219  19.145  1.00120.45           N
ATOM    809  CA  PHE   104      41.374  15.232  18.119  1.00120.45           C
ATOM    810  CB  PHE   104      42.449  14.124  18.131  1.00120.45           C
ATOM    811  CG  PHE   104      41.825  12.833  18.545  1.00120.45           C
ATOM    812  CD1 PHE   104      41.264  12.007  17.596  1.00120.45           C
ATOM    813  CD2 PHE   104      41.798  12.442  19.863  1.00120.45           C
ATOM    814  CE1 PHE   104      40.684  10.814  17.951  1.00120.45           C
ATOM    815  CE2 PHE   104      41.218  11.247  20.225  1.00120.45           C
ATOM    816  CZ  PHE   104      40.660  10.431  19.270  1.00120.45           C
ATOM    817  C   PHE   104      40.033  14.585  18.319  1.00120.45           C
ATOM    818  O   PHE   104      39.326  14.304  17.353  1.00120.45           O
ATOM    819  N   MET   105      39.658  14.309  19.587  1.00 74.84           N
ATOM    820  CA  MET   105      38.411  13.652  19.871  1.00 74.84           C
ATOM    821  CB  MET   105      38.180  13.376  21.366  1.00 74.84           C
ATOM    822  CG  MET   105      39.205  12.450  22.015  1.00 74.84           C
ATOM    823  SD  MET   105      38.722  11.895  23.676  1.00 74.84           S
ATOM    824  CE  MET   105      38.263  13.548  24.274  1.00 74.84           C
ATOM    825  C   MET   105      37.284  14.538  19.459  1.00 74.84           C
ATOM    826  O   MET   105      36.316  14.095  18.841  1.00 74.84           O
ATOM    827  N   LEU   106      37.407  15.835  19.774  1.00108.82           N
ATOM    828  CA  LEU   106      36.357  16.766  19.509  1.00108.82           C
ATOM    829  CB  LEU   106      36.751  18.185  19.968  1.00108.82           C
ATOM    830  CG  LEU   106      35.602  19.208  20.039  1.00108.82           C
ATOM    831  CD1 LEU   106      36.111  20.582  20.505  1.00108.82           C
ATOM    832  CD2 LEU   106      34.816  19.284  18.728  1.00108.82           C
ATOM    833  C   LEU   106      36.150  16.751  18.024  1.00108.82           C
ATOM    834  O   LEU   106      35.013  16.781  17.553  1.00108.82           O
ATOM    835  N   PHE   107      37.255  16.686  17.250  1.00131.09           N
ATOM    836  CA  PHE   107      37.195  16.695  15.812  1.00131.09           C
ATOM    837  CB  PHE   107      38.527  16.420  15.099  1.00131.09           C
ATOM    838  CG  PHE   107      38.125  16.290  13.674  1.00131.09           C
ATOM    839  CD1 PHE   107      37.616  17.379  13.007  1.00131.09           C
ATOM    840  CD2 PHE   107      38.256  15.095  13.004  1.00131.09           C
ATOM    841  CE1 PHE   107      37.231  17.279  11.693  1.00131.09           C
ATOM    842  CE2 PHE   107      37.873  14.992  11.687  1.00131.09           C
ATOM    843  CZ  PHE   107      37.359  16.083  11.030  1.00131.09           C
ATOM    844  C   PHE   107      36.440  15.537  15.280  1.00131.09           C
ATOM    845  O   PHE   107      35.505  15.694  14.497  1.00131.09           O
ATOM    846  N   VAL   108      36.873  14.331  15.676  1.00 98.22           N
ATOM    847  CA  VAL   108      36.332  13.142  15.101  1.00 98.22           C
ATOM    848  CB  VAL   108      37.004  11.892  15.602  1.00 98.22           C
ATOM    849  CG1 VAL   108      38.471  11.918  15.141  1.00 98.22           C
ATOM    850  CG2 VAL   108      36.847  11.804  17.131  1.00 98.22           C
ATOM    851  C   VAL   108      34.884  13.059  15.431  1.00 98.22           C
ATOM    852  O   VAL   108      34.060  12.718  14.584  1.00 98.22           O
ATOM    853  N   MET   109      34.552  13.387  16.688  1.00103.59           N
ATOM    854  CA  MET   109      33.223  13.300  17.201  1.00103.59           C
ATOM    855  CB  MET   109      33.197  13.567  18.714  1.00103.59           C
ATOM    856  CG  MET   109      33.988  12.521  19.503  1.00103.59           C
ATOM    857  SD  MET   109      33.347  10.826  19.347  1.00103.59           S
ATOM    858  CE  MET   109      34.721  10.039  20.236  1.00103.59           C
ATOM    859  C   MET   109      32.329  14.273  16.494  1.00103.59           C
ATOM    860  O   MET   109      31.162  13.972  16.251  1.00103.59           O
ATOM    861  N   LEU   110      32.833  15.480  16.170  1.00 52.13           N
ATOM    862  CA  LEU   110      32.025  16.461  15.494  1.00 52.13           C
ATOM    863  CB  LEU   110      32.741  17.795  15.228  1.00 52.13           C
ATOM    864  CG  LEU   110      33.016  18.627  16.488  1.00 52.13           C
ATOM    865  CD1 LEU   110      33.632  19.988  16.122  1.00 52.13           C
ATOM    866  CD2 LEU   110      31.758  18.759  17.363  1.00 52.13           C
ATOM    867  C   LEU   110      31.650  15.921  14.161  1.00 52.13           C
ATOM    868  O   LEU   110      30.534  16.128  13.684  1.00 52.13           O
ATOM    869  N   GLU   111      32.602  15.232  13.512  1.00 81.27           N
ATOM    870  CA  GLU   111      32.360  14.691  12.213  1.00 81.27           C
ATOM    871  CB  GLU   111      33.604  14.022  11.603  1.00 81.27           C
ATOM    872  CG  GLU   111      33.358  13.432  10.213  1.00 81.27           C
ATOM    873  CD  GLU   111      34.653  12.786   9.739  1.00 81.27           C
ATOM    874  OE1 GLU   111      35.255  12.018  10.536  1.00 81.27           O
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ATOM    875  OE2 GLU   111      35.058  13.053   8.576  1.00 81.27           O
ATOM    876  C   GLU   111      31.310  13.628  12.319  1.00 81.27           C
ATOM    877  O   GLU   111      30.377  13.591  11.518  1.00 81.27           O
ATOM    878  N   ALA   112      31.421  12.745  13.334  1.00 39.41           N
ATOM    879  CA  ALA   112      30.515  11.636  13.442  1.00 39.41           C
ATOM    880  CB  ALA   112      30.843  10.720  14.634  1.00 39.41           C
ATOM    881  C   ALA   112      29.112  12.120  13.626  1.00 39.41           C
ATOM    882  O   ALA   112      28.200  11.658  12.944  1.00 39.41           O
ATOM    883  N   PHE   113      28.902  13.082  14.540  1.00 57.31           N
ATOM    884  CA  PHE   113      27.584  13.592  14.797  1.00 57.31           C
ATOM    885  CB  PHE   113      27.493  14.467  16.057  1.00 57.31           C
ATOM    886  CG  PHE   113      27.417  13.505  17.194  1.00 57.31           C
ATOM    887  CD1 PHE   113      28.538  12.848  17.642  1.00 57.31           C
ATOM    888  CD2 PHE   113      26.211  13.256  17.808  1.00 57.31           C
ATOM    889  CE1 PHE   113      28.460  11.960  18.689  1.00 57.31           C
ATOM    890  CE2 PHE   113      26.125  12.369  18.855  1.00 57.31           C
ATOM    891  CZ  PHE   113      27.252  11.719  19.298  1.00 57.31           C
ATOM    892  C   PHE   113      27.082  14.348  13.614  1.00 57.31           C
ATOM    893  O   PHE   113      25.891  14.325  13.313  1.00 57.31           O
ATOM    894  N   LEU   114      27.985  15.046  12.911  1.00151.08           N
ATOM    895  CA  LEU   114      27.596  15.836  11.780  1.00151.08           C
ATOM    896  CB  LEU   114      28.807  16.553  11.144  1.00151.08           C
ATOM    897  CG  LEU   114      28.459  17.559  10.030  1.00151.08           C
ATOM    898  CD1 LEU   114      27.905  16.874   8.770  1.00151.08           C
ATOM    899  CD2 LEU   114      27.542  18.665  10.572  1.00151.08           C
ATOM    900  C   LEU   114      27.005  14.902  10.769  1.00151.08           C
ATOM    901  O   LEU   114      26.084  15.263  10.039  1.00151.08           O
ATOM    902  N   LEU   115      27.549  13.675  10.690  1.00138.94           N
ATOM    903  CA  LEU   115      27.116  12.691   9.740  1.00138.94           C
ATOM    904  CB  LEU   115      28.052  11.473   9.726  1.00138.94           C
ATOM    905  CG  LEU   115      27.814  10.530   8.541  1.00138.94           C
ATOM    906  CD1 LEU   115      28.051  11.254   7.207  1.00138.94           C
ATOM    907  CD2 LEU   115      28.689   9.277   8.664  1.00138.94           C
ATOM    908  C   LEU   115      25.715  12.244  10.053  1.00138.94           C
ATOM    909  O   LEU   115      24.925  11.986   9.146  1.00138.94           O
ATOM    910  N   ALA   116      25.373  12.110  11.350  1.00 28.95           N
ATOM    911  CA  ALA   116      24.057  11.681  11.737  1.00 28.95           C
ATOM    912  CB  ALA   116      23.905  11.526  13.260  1.00 28.95           C
ATOM    913  C   ALA   116      23.068  12.707  11.290  1.00 28.95           C
ATOM    914  O   ALA   116      21.997  12.375  10.784  1.00 28.95           O
ATOM    915  N   VAL   117      23.417  13.995  11.462  1.00 29.82           N
ATOM    916  CA  VAL   117      22.533  15.065  11.108  1.00 29.82           C
ATOM    917  CB  VAL   117      23.121  16.409  11.390  1.00 29.82           C
ATOM    918  CG1 VAL   117      22.149  17.463  10.848  1.00 29.82           C
ATOM    919  CG2 VAL   117      23.399  16.525  12.899  1.00 29.82           C
ATOM    920  C   VAL   117      22.274  14.993   9.639  1.00 29.82           C
ATOM    921  O   VAL   117      21.135  15.119   9.191  1.00 29.82           O
ATOM    922  N   MET   118      23.337  14.765   8.850  1.00150.09           N
ATOM    923  CA  MET   118      23.215  14.687   7.427  1.00150.09           C
ATOM    924  CB  MET   118      24.569  14.418   6.741  1.00150.09           C
ATOM    925  CG  MET   118      24.471  13.984   5.274  1.00150.09           C
ATOM    926  SD  MET   118      24.104  12.214   5.026  1.00150.09           S
ATOM    927  CE  MET   118      25.801  11.654   5.344  1.00150.09           C
ATOM    928  C   MET   118      22.312  13.552   7.099  1.00150.09           C
ATOM    929  O   MET   118      21.474  13.659   6.208  1.00150.09           O
ATOM    930  N   ALA   119      22.453  12.423   7.811  1.00 29.58           N
ATOM    931  CA  ALA   119      21.655  11.283   7.479  1.00 29.58           C
ATOM    932  CB  ALA   119      21.910  10.087   8.412  1.00 29.58           C
ATOM    933  C   ALA   119      20.220  11.672   7.625  1.00 29.58           C
ATOM    934  O   ALA   119      19.393  11.330   6.781  1.00 29.58           O
ATOM    935  N   TYR   120      19.887  12.403   8.705  1.00150.06           N
ATOM    936  CA  TYR   120      18.527  12.799   8.933  1.00150.06           C
ATOM    937  CB  TYR   120      18.339  13.510  10.285  1.00150.06           C
ATOM    938  CG  TYR   120      16.955  14.062  10.317  1.00150.06           C
ATOM    939  CD1 TYR   120      15.883  13.270  10.659  1.00150.06           C
ATOM    940  CD2 TYR   120      16.731  15.383  10.003  1.00150.06           C
ATOM    941  CE1 TYR   120      14.609  13.789  10.687  1.00150.06           C
ATOM    942  CE2 TYR   120      15.461  15.908  10.028  1.00150.06           C
ATOM    943  CZ  TYR   120      14.397  15.110  10.370  1.00150.06           C
ATOM    944  OH  TYR   120      13.092  15.644  10.397  1.00150.06           O
ATOM    945  C   TYR   120      18.068  13.752   7.875  1.00150.06           C
ATOM    946  O   TYR   120      17.050  13.520   7.225  1.00150.06           O
ATOM    947  N   ASP   121      18.842  14.826   7.628  1.00 42.62           N
ATOM    948  CA  ASP   121      18.402  15.820   6.694  1.00 42.62           C
ATOM    949  CB  ASP   121      19.392  16.983   6.514  1.00 42.62           C
ATOM    950  CG  ASP   121      19.378  17.829   7.779  1.00 42.62           C
ATOM    951  OD1 ASP   121      18.858  17.333   8.814  1.00 42.62           O
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ATOM    952  OD2 ASP   121      19.890  18.980   7.727  1.00 42.62           O
ATOM    953  C   ASP   121      18.265  15.155   5.371  1.00 42.62           C
ATOM    954  O   ASP   121      17.326  15.410   4.620  1.00 42.62           O
ATOM    955  N   CYS   122      19.209  14.257   5.063  1.00 34.52           N
ATOM    956  CA  CYS   122      19.190  13.587   3.805  1.00 34.52           C
ATOM    957  CB  CYS   122      20.349  12.594   3.644  1.00 34.52           C
ATOM    958  SG  CYS   122      20.306  11.751   2.036  1.00 34.52           S
ATOM    959  C   CYS   122      17.917  12.811   3.732  1.00 34.52           C
ATOM    960  O   CYS   122      17.251  12.786   2.699  1.00 34.52           O
ATOM    961  N   TYR   123      17.553  12.160   4.852  1.00 55.68           N
ATOM    962  CA  TYR   123      16.378  11.340   4.929  1.00 55.68           C
ATOM    963  CB  TYR   123      16.275  10.673   6.313  1.00 55.68           C
ATOM    964  CG  TYR   123      15.027   9.864   6.397  1.00 55.68           C
ATOM    965  CD1 TYR   123      15.000   8.565   5.944  1.00 55.68           C
ATOM    966  CD2 TYR   123      13.884  10.404   6.941  1.00 55.68           C
ATOM    967  CE1 TYR   123      13.847   7.820   6.031  1.00 55.68           C
ATOM    968  CE2 TYR   123      12.729   9.664   7.028  1.00 55.68           C
ATOM    969  CZ  TYR   123      12.710   8.369   6.572  1.00 55.68           C
ATOM    970  OH  TYR   123      11.526   7.606   6.661  1.00 55.68           O
ATOM    971  C   TYR   123      15.160  12.184   4.744  1.00 55.68           C
ATOM    972  O   TYR   123      14.296  11.876   3.926  1.00 55.68           O
ATOM    973  N   VAL   124      15.083  13.309   5.473  1.00 99.89           N
ATOM    974  CA  VAL   124      13.896  14.105   5.443  1.00 99.89           C
ATOM    975  CB  VAL   124      13.953  15.292   6.362  1.00 99.89           C
ATOM    976  CG1 VAL   124      15.035  16.263   5.867  1.00 99.89           C
ATOM    977  CG2 VAL   124      12.549  15.911   6.436  1.00 99.89           C
ATOM    978  C   VAL   124      13.662  14.595   4.054  1.00 99.89           C
ATOM    979  O   VAL   124      12.521  14.654   3.607  1.00 99.89           O
ATOM    980  N   ALA   125      14.722  15.020   3.345  1.00 52.81           N
ATOM    981  CA  ALA   125      14.514  15.501   2.010  1.00 52.81           C
ATOM    982  CB  ALA   125      15.769  16.166   1.420  1.00 52.81           C
ATOM    983  C   ALA   125      14.119  14.396   1.072  1.00 52.81           C
ATOM    984  O   ALA   125      13.136  14.522   0.343  1.00 52.81           O
ATOM    985  N   ILE   126      14.878  13.277   1.064  1.00107.89           N
ATOM    986  CA  ILE   126      14.618  12.250   0.089  1.00107.89           C
ATOM    987  CB  ILE   126      15.695  11.205   0.057  1.00107.89           C
ATOM    988  CG2 ILE   126      15.245  10.089  -0.901  1.00107.89           C
ATOM    989  CG1 ILE   126      17.039  11.844  -0.330  1.00107.89           C
ATOM    990  CD1 ILE   126      17.020  12.517  -1.702  1.00107.89           C
ATOM    991  C   ILE   126      13.329  11.547   0.365  1.00107.89           C
ATOM    992  O   ILE   126      12.423  11.538  -0.465  1.00107.89           O
ATOM    993  N   CYS   127      13.198  10.968   1.571  1.00 53.32           N
ATOM    994  CA  CYS   127      12.003  10.250   1.896  1.00 53.32           C
ATOM    995  CB  CYS   127      12.111   9.460   3.208  1.00 53.32           C
ATOM    996  SG  CYS   127      13.250   8.054   3.027  1.00 53.32           S
ATOM    997  C   CYS   127      10.897  11.244   1.990  1.00 53.32           C
ATOM    998  O   CYS   127       9.763  10.965   1.608  1.00 53.32           O
ATOM    999  N   HIS   128      11.215  12.447   2.500  1.00 63.95           N
ATOM   1000  CA  HIS   128      10.256  13.508   2.602  1.00 63.95           C
ATOM   1001  ND1 HIS   128       9.738  16.591   1.434  1.00 63.95           N
ATOM   1002  CG  HIS   128       9.103  15.372   1.331  1.00 63.95           C
ATOM   1003  CB  HIS   128       9.826  14.064   1.233  1.00 63.95           C
ATOM   1004  NE2 HIS   128       7.555  17.009   1.440  1.00 63.95           N
ATOM   1005  CD2 HIS   128       7.771  15.646   1.336  1.00 63.95           C
ATOM   1006  CE1 HIS   128       8.765  17.535   1.496  1.00 63.95           C
ATOM   1007  C   HIS   128       9.046  13.028   3.336  1.00 63.95           C
ATOM   1008  O   HIS   128       7.919  13.151   2.859  1.00 63.95           O
ATOM   1009  N   PRO   129       9.269  12.489   4.501  1.00161.06           N
ATOM   1010  CA  PRO   129       8.213  11.935   5.306  1.00161.06           C
ATOM   1011  CD  PRO   129      10.432  12.851   5.295  1.00161.06           C
ATOM   1012  CB  PRO   129       8.875  11.558   6.629  1.00161.06           C
ATOM   1013  CG  PRO   129      10.019  12.582   6.751  1.00161.06           C
ATOM   1014  C   PRO   129       7.072  12.883   5.527  1.00161.06           C
ATOM   1015  O   PRO   129       5.926  12.437   5.491  1.00161.06           O
ATOM   1016  N   LEU   130       7.345  14.179   5.774  1.00 44.21           N
ATOM   1017  CA  LEU   130       6.287  15.108   6.050  1.00 44.21           C
ATOM   1018  CB  LEU   130       6.770  16.337   6.837  1.00 44.21           C
ATOM   1019  CG  LEU   130       7.293  15.938   8.233  1.00 44.21           C
ATOM   1020  CD1 LEU   130       7.780  17.150   9.042  1.00 44.21           C
ATOM   1021  CD2 LEU   130       6.247  15.105   8.992  1.00 44.21           C
ATOM   1022  C   LEU   130       5.677  15.539   4.753  1.00 44.21           C
ATOM   1023  O   LEU   130       6.313  15.459   3.703  1.00 44.21           O
ATOM   1024  N   HIS   131       4.404  15.992   4.794  1.00 60.90           N
ATOM   1025  CA  HIS   131       3.755  16.384   3.576  1.00 60.90           C
ATOM   1026  ND1 HIS   131       0.616  15.135   3.415  1.00 60.90           N
ATOM   1027  CG  HIS   131       1.345  15.941   4.261  1.00 60.90           C
ATOM   1028  CB  HIS   131       2.345  16.958   3.795  1.00 60.90           C
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ATOM   1029  NE2 HIS   131      -0.007  14.612   5.484  1.00 60.90           N
ATOM   1030  CD2 HIS   131       0.951  15.609   5.521  1.00 60.90           C
ATOM   1031  CE1 HIS   131      -0.177  14.360   4.198  1.00 60.90           C
ATOM   1032  C   HIS   131       4.580  17.466   2.976  1.00 60.90           C
ATOM   1033  O   HIS   131       4.991  17.377   1.820  1.00 60.90           O
ATOM   1034  N   TYR   132       4.840  18.533   3.750  1.00205.55           N
ATOM   1035  CA  TYR   132       5.743  19.527   3.269  1.00205.55           C
ATOM   1036  CB  TYR   132       5.130  20.528   2.263  1.00205.55           C
ATOM   1037  CG  TYR   132       4.049  21.341   2.891  1.00205.55           C
ATOM   1038  CD1 TYR   132       2.761  20.859   2.949  1.00205.55           C
ATOM   1039  CD2 TYR   132       4.317  22.586   3.413  1.00205.55           C
ATOM   1040  CE1 TYR   132       1.759  21.606   3.523  1.00205.55           C
ATOM   1041  CE2 TYR   132       3.320  23.338   3.988  1.00205.55           C
ATOM   1042  CZ  TYR   132       2.038  22.846   4.044  1.00205.55           C
ATOM   1043  OH  TYR   132       1.011  23.615   4.632  1.00205.55           O
ATOM   1044  C   TYR   132       6.253  20.245   4.466  1.00205.55           C
ATOM   1045  O   TYR   132       5.502  20.884   5.200  1.00205.55           O
ATOM   1046  N   ILE   133       7.563  20.109   4.727  1.00120.33           N
ATOM   1047  CA  ILE   133       8.110  20.809   5.841  1.00120.33           C
ATOM   1048  CB  ILE   133       8.259  19.966   7.072  1.00120.33           C
ATOM   1049  CG2 ILE   133       9.056  20.773   8.111  1.00120.33           C
ATOM   1050  CG1 ILE   133       6.870  19.527   7.565  1.00120.33           C
ATOM   1051  CD1 ILE   133       5.964  20.696   7.950  1.00120.33           C
ATOM   1052  C   ILE   133       9.456  21.288   5.445  1.00120.33           C
ATOM   1053  O   ILE   133      10.221  20.567   4.807  1.00120.33           O
ATOM   1054  N   LEU   134       9.770  22.543   5.800  1.00 78.87           N
ATOM   1055  CA  LEU   134      11.079  23.021   5.513  1.00 78.87           C
ATOM   1056  CB  LEU   134      11.135  24.540   5.286  1.00 78.87           C
ATOM   1057  CG  LEU   134      10.329  25.010   4.062  1.00 78.87           C
ATOM   1058  CD1 LEU   134      10.424  26.533   3.879  1.00 78.87           C
ATOM   1059  CD2 LEU   134      10.725  24.230   2.800  1.00 78.87           C
ATOM   1060  C   LEU   134      11.842  22.730   6.746  1.00 78.87           C
ATOM   1061  O   LEU   134      12.162  23.620   7.532  1.00 78.87           O
ATOM   1062  N   ILE   135      12.151  21.442   6.935  1.00156.90           N
ATOM   1063  CA  ILE   135      12.913  21.049   8.068  1.00156.90           C
ATOM   1064  CB  ILE   135      13.157  19.567   8.139  1.00156.90           C
ATOM   1065  CG2 ILE   135      13.946  19.140   6.891  1.00156.90           C
ATOM   1066  CG1 ILE   135      13.839  19.207   9.470  1.00156.90           C
ATOM   1067  CD1 ILE   135      12.953  19.442  10.694  1.00156.90           C
ATOM   1068  C   ILE   135      14.208  21.739   7.880  1.00156.90           C
ATOM   1069  O   ILE   135      14.858  22.160   8.834  1.00156.90           O
ATOM   1070  N   MET   136      14.613  21.870   6.606  1.00106.38           N
ATOM   1071  CA  MET   136      15.886  22.450   6.358  1.00106.38           C
ATOM   1072  CB  MET   136      16.515  21.952   5.045  1.00106.38           C
ATOM   1073  CG  MET   136      16.828  20.455   5.048  1.00106.38           C
ATOM   1074  SD  MET   136      17.483  19.821   3.475  1.00106.38           S
ATOM   1075  CE  MET   136      15.885  19.868   2.613  1.00106.38           C
ATOM   1076  C   MET   136      15.779  23.933   6.255  1.00106.38           C
ATOM   1077  O   MET   136      15.894  24.500   5.171  1.00106.38           O
ATOM   1078  N   SER   137      15.567  24.604   7.398  1.00 95.68           N
ATOM   1079  CA  SER   137      15.617  26.032   7.388  1.00 95.68           C
ATOM   1080  CB  SER   137      14.660  26.695   8.393  1.00 95.68           C
ATOM   1081  OG  SER   137      14.780  28.109   8.319  1.00 95.68           O
ATOM   1082  C   SER   137      17.009  26.346   7.812  1.00 95.68           C
ATOM   1083  O   SER   137      17.721  25.463   8.287  1.00 95.68           O
ATOM   1084  N   PRO   138      17.447  27.556   7.643  1.00246.68           N
ATOM   1085  CA  PRO   138      18.744  27.911   8.139  1.00246.68           C
ATOM   1086  CD  PRO   138      17.045  28.380   6.518  1.00246.68           C
ATOM   1087  CB  PRO   138      19.123  29.218   7.438  1.00246.68           C
ATOM   1088  CG  PRO   138      17.830  29.681   6.737  1.00246.68           C
ATOM   1089  C   PRO   138      18.497  28.024   9.598  1.00246.68           C
ATOM   1090  O   PRO   138      17.336  28.020   9.979  1.00246.68           O
ATOM   1091  N   GLY   139      19.517  28.024  10.460  1.00200.83           N
ATOM   1092  CA  GLY   139      19.193  28.185  11.845  1.00200.83           C
ATOM   1093  C   GLY   139      18.864  26.822  12.354  1.00200.83           C
ATOM   1094  O   GLY   139      19.337  26.414  13.409  1.00200.83           O
ATOM   1095  N   LEU   140      18.027  26.084  11.599  1.00 79.96           N
ATOM   1096  CA  LEU   140      17.706  24.735  11.936  1.00 79.96           C
ATOM   1097  CB  LEU   140      16.597  24.155  11.043  1.00 79.96           C
ATOM   1098  CG  LEU   140      15.262  24.903  11.235  1.00 79.96           C
ATOM   1099  CD1 LEU   140      14.146  24.328  10.351  1.00 79.96           C
ATOM   1100  CD2 LEU   140      14.869  24.957  12.719  1.00 79.96           C
ATOM   1101  C   LEU   140      18.969  23.990  11.727  1.00 79.96           C
ATOM   1102  O   LEU   140      19.373  23.159  12.539  1.00 79.96           O
ATOM   1103  N   CYS   141      19.660  24.321  10.624  1.00 87.08           N
ATOM   1104  CA  CYS   141      20.900  23.662  10.394  1.00 87.08           C
ATOM   1105  CB  CYS   141      21.589  24.011   9.079  1.00 87.08           C
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ATOM   1106  SG  CYS   141      22.896  22.789   8.810  1.00 87.08           S
ATOM   1107  C   CYS   141      21.781  24.090  11.513  1.00 87.08           C
ATOM   1108  O   CYS   141      22.669  23.356  11.942  1.00 87.08           O
ATOM   1109  N   ILE   142      21.550  25.320  12.004  1.00 46.56           N
ATOM   1110  CA  ILE   142      22.305  25.817  13.113  1.00 46.56           C
ATOM   1111  CB  ILE   142      21.955  27.231  13.477  1.00 46.56           C
ATOM   1112  CG2 ILE   142      22.694  27.591  14.777  1.00 46.56           C
ATOM   1113  CG1 ILE   142      22.284  28.168  12.301  1.00 46.56           C
ATOM   1114  CD1 ILE   142      21.720  29.579  12.458  1.00 46.56           C
ATOM   1115  C   ILE   142      22.017  24.919  14.274  1.00 46.56           C
ATOM   1116  O   ILE   142      22.900  24.641  15.083  1.00 46.56           O
ATOM   1117  N   PHE   143      20.757  24.455  14.403  1.00 90.31           N
ATOM   1118  CA  PHE   143      20.418  23.577  15.487  1.00 90.31           C
ATOM   1119  CB  PHE   143      18.925  23.202  15.555  1.00 90.31           C
ATOM   1120  CG  PHE   143      18.169  24.371  16.091  1.00 90.31           C
ATOM   1121  CD1 PHE   143      18.000  24.518  17.449  1.00 90.31           C
ATOM   1122  CD2 PHE   143      17.633  25.319  15.252  1.00 90.31           C
ATOM   1123  CE1 PHE   143      17.309  25.590  17.961  1.00 90.31           C
ATOM   1124  CE2 PHE   143      16.940  26.394  15.757  1.00 90.31           C
ATOM   1125  CZ  PHE   143      16.776  26.531  17.114  1.00 90.31           C
ATOM   1126  C   PHE   143      21.192  22.304  15.359  1.00 90.31           C
ATOM   1127  O   PHE   143      21.765  21.821  16.333  1.00 90.31           O
ATOM   1128  N   LEU   144      21.244  21.719  14.150  1.00 78.25           N
ATOM   1129  CA  LEU   144      21.962  20.486  14.012  1.00 78.25           C
ATOM   1130  CB  LEU   144      21.835  19.871  12.610  1.00 78.25           C
ATOM   1131  CG  LEU   144      20.420  19.324  12.329  1.00 78.25           C
ATOM   1132  CD1 LEU   144      20.096  18.134  13.246  1.00 78.25           C
ATOM   1133  CD2 LEU   144      19.353  20.424  12.394  1.00 78.25           C
ATOM   1134  C   LEU   144      23.400  20.749  14.324  1.00 78.25           C
ATOM   1135  O   LEU   144      24.057  19.947  14.986  1.00 78.25           O
ATOM   1136  N   VAL   145      23.925  21.901  13.873  1.00 34.20           N
ATOM   1137  CA  VAL   145      25.300  22.211  14.129  1.00 34.20           C
ATOM   1138  CB  VAL   145      25.724  23.525  13.544  1.00 34.20           C
ATOM   1139  CG1 VAL   145      27.159  23.823  14.009  1.00 34.20           C
ATOM   1140  CG2 VAL   145      25.570  23.455  12.016  1.00 34.20           C
ATOM   1141  C   VAL   145      25.505  22.296  15.608  1.00 34.20           C
ATOM   1142  O   VAL   145      26.500  21.797  16.129  1.00 34.20           O
ATOM   1143  N   SER   146      24.565  22.931  16.331  1.00 30.76           N
ATOM   1144  CA  SER   146      24.733  23.074  17.749  1.00 30.76           C
ATOM   1145  CB  SER   146      23.650  23.943  18.412  1.00 30.76           C
ATOM   1146  OG  SER   146      22.386  23.299  18.352  1.00 30.76           O
ATOM   1147  C   SER   146      24.684  21.716  18.377  1.00 30.76           C
ATOM   1148  O   SER   146      25.370  21.460  19.365  1.00 30.76           O
ATOM   1149  N   ALA   147      23.872  20.806  17.807  1.00 24.78           N
ATOM   1150  CA  ALA   147      23.716  19.485  18.346  1.00 24.78           C
ATOM   1151  CB  ALA   147      22.699  18.639  17.561  1.00 24.78           C
ATOM   1152  C   ALA   147      25.030  18.776  18.285  1.00 24.78           C
ATOM   1153  O   ALA   147      25.411  18.062  19.210  1.00 24.78           O
ATOM   1154  N   SER   148      25.765  18.966  17.181  1.00 89.53           N
ATOM   1155  CA  SER   148      27.025  18.314  16.990  1.00 89.53           C
ATOM   1156  CB  SER   148      27.690  18.789  15.690  1.00 89.53           C
ATOM   1157  OG  SER   148      29.018  18.305  15.610  1.00 89.53           O
ATOM   1158  C   SER   148      27.930  18.684  18.123  1.00 89.53           C
ATOM   1159  O   SER   148      28.557  17.824  18.734  1.00 89.53           O
ATOM   1160  N   TRP   149      28.001  19.979  18.459  1.00 53.33           N
ATOM   1161  CA  TRP   149      28.901  20.425  19.482  1.00 53.33           C
ATOM   1162  CB  TRP   149      28.898  21.953  19.659  1.00 53.33           C
ATOM   1163  CG  TRP   149      29.516  22.710  18.508  1.00 53.33           C
ATOM   1164  CD2 TRP   149      30.911  23.039  18.428  1.00 53.33           C
ATOM   1165  CD1 TRP   149      28.933  23.215  17.383  1.00 53.33           C
ATOM   1166  NE1 TRP   149      29.879  23.841  16.606  1.00 53.33           N
ATOM   1167  CE2 TRP   149      31.101  23.739  17.237  1.00 53.33           C
ATOM   1168  CE3 TRP   149      31.948  22.778  19.276  1.00 53.33           C
ATOM   1169  CZ2 TRP   149      32.338  24.193  16.876  1.00 53.33           C
ATOM   1170  CZ3 TRP   149      33.194  23.235  18.910  1.00 53.33           C
ATOM   1171  CH2 TRP   149      33.385  23.929  17.733  1.00 53.33           C
ATOM   1172  C   TRP   149      28.528  19.831  20.800  1.00 53.33           C
ATOM   1173  O   TRP   149      29.398  19.424  21.567  1.00 53.33           O
ATOM   1174  N   ILE   150      27.224  19.781  21.122  1.00 90.16           N
ATOM   1175  CA  ILE   150      26.872  19.282  22.417  1.00 90.16           C
ATOM   1176  CB  ILE   150      25.403  19.408  22.725  1.00 90.16           C
ATOM   1177  CG2 ILE   150      25.047  20.904  22.702  1.00 90.16           C
ATOM   1178  CG1 ILE   150      24.551  18.562  21.765  1.00 90.16           C
ATOM   1179  CD1 ILE   150      23.094  18.419  22.205  1.00 90.16           C
ATOM   1180  C   ILE   150      27.258  17.839  22.524  1.00 90.16           C
ATOM   1181  O   ILE   150      27.922  17.443  23.478  1.00 90.16           O
ATOM   1182  N   MET   151      26.902  17.018  21.519  1.00 58.65           N
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ATOM   1183  CA  MET   151      27.139  15.607  21.608  1.00 58.65           C
ATOM   1184  CB  MET   151      26.601  14.845  20.387  1.00 58.65           C
ATOM   1185  CG  MET   151      25.079  14.906  20.262  1.00 58.65           C
ATOM   1186  SD  MET   151      24.186  14.112  21.632  1.00 58.65           S
ATOM   1187  CE  MET   151      22.532  14.430  20.953  1.00 58.65           C
ATOM   1188  C   MET   151      28.602  15.335  21.695  1.00 58.65           C
ATOM   1189  O   MET   151      29.048  14.508  22.488  1.00 58.65           O
ATOM   1190  N   ASN   152      29.392  16.030  20.870  1.00 68.89           N
ATOM   1191  CA  ASN   152      30.802  15.811  20.820  1.00 68.89           C
ATOM   1192  CB  ASN   152      31.371  16.405  19.539  1.00 68.89           C
ATOM   1193  CG  ASN   152      30.641  15.498  18.559  1.00 68.89           C
ATOM   1194  OD1 ASN   152      30.564  14.292  18.785  1.00 68.89           O
ATOM   1195  ND2 ASN   152      30.040  16.051  17.477  1.00 68.89           N
ATOM   1196  C   ASN   152      31.450  16.287  22.081  1.00 68.89           C
ATOM   1197  O   ASN   152      32.425  15.696  22.544  1.00 68.89           O
ATOM   1198  N   ALA   153      30.921  17.373  22.670  1.00 29.50           N
ATOM   1199  CA  ALA   153      31.431  17.893  23.905  1.00 29.50           C
ATOM   1200  CB  ALA   153      30.720  19.184  24.345  1.00 29.50           C
ATOM   1201  C   ALA   153      31.213  16.869  24.976  1.00 29.50           C
ATOM   1202  O   ALA   153      32.074  16.661  25.830  1.00 29.50           O
ATOM   1203  N   LEU   154      30.054  16.182  24.954  1.00101.29           N
ATOM   1204  CA  LEU   154      29.793  15.228  25.992  1.00101.29           C
ATOM   1205  CB  LEU   154      28.435  14.504  25.888  1.00101.29           C
ATOM   1206  CG  LEU   154      27.244  15.249  26.528  1.00101.29           C
ATOM   1207  CD1 LEU   154      27.394  15.301  28.057  1.00101.29           C
ATOM   1208  CD2 LEU   154      27.014  16.639  25.925  1.00101.29           C
ATOM   1209  C   LEU   154      30.863  14.187  25.984  1.00101.29           C
ATOM   1210  O   LEU   154      31.289  13.730  27.042  1.00101.29           O
ATOM   1211  N   HIS   155      31.288  13.731  24.796  1.00 59.89           N
ATOM   1212  CA  HIS   155      32.334  12.751  24.743  1.00 59.89           C
ATOM   1213  ND1 HIS   155      33.873  10.022  23.744  1.00 59.89           N
ATOM   1214  CG  HIS   155      33.761  11.308  23.265  1.00 59.89           C
ATOM   1215  CB  HIS   155      32.521  12.148  23.344  1.00 59.89           C
ATOM   1216  NE2 HIS   155      35.863  10.566  22.912  1.00 59.89           N
ATOM   1217  CD2 HIS   155      34.984  11.623  22.759  1.00 59.89           C
ATOM   1218  CE1 HIS   155      35.150   9.627  23.508  1.00 59.89           C
ATOM   1219  C   HIS   155      33.673  13.309  25.128  1.00 59.89           C
ATOM   1220  O   HIS   155      34.380  12.735  25.953  1.00 59.89           O
ATOM   1221  N   SER   156      34.055  14.443  24.513  1.00 99.44           N
ATOM   1222  CA  SER   156      35.374  15.004  24.637  1.00 99.44           C
ATOM   1223  CB  SER   156      35.642  16.071  23.563  1.00 99.44           C
ATOM   1224  OG  SER   156      35.587  15.489  22.270  1.00 99.44           O
ATOM   1225  C   SER   156      35.658  15.627  25.973  1.00 99.44           C
ATOM   1226  O   SER   156      36.749  15.453  26.509  1.00 99.44           O
ATOM   1227  N   LEU   157      34.693  16.372  26.539  1.00108.73           N
ATOM   1228  CA  LEU   157      34.873  17.166  27.729  1.00108.73           C
ATOM   1229  CB  LEU   157      33.643  18.078  27.968  1.00108.73           C
ATOM   1230  CG  LEU   157      33.750  19.167  29.066  1.00108.73           C
ATOM   1231  CD1 LEU   157      32.472  20.020  29.086  1.00108.73           C
ATOM   1232  CD2 LEU   157      34.053  18.608  30.466  1.00108.73           C
ATOM   1233  C   LEU   157      35.119  16.329  28.955  1.00108.73           C
ATOM   1234  O   LEU   157      35.915  16.701  29.813  1.00108.73           O
ATOM   1235  N   LEU   158      34.482  15.155  29.060  1.00146.47           N
ATOM   1236  CA  LEU   158      34.470  14.393  30.278  1.00146.47           C
ATOM   1237  CB  LEU   158      33.729  13.061  30.089  1.00146.47           C
ATOM   1238  CG  LEU   158      33.688  12.194  31.352  1.00146.47           C
ATOM   1239  CD1 LEU   158      32.944  12.920  32.486  1.00146.47           C
ATOM   1240  CD2 LEU   158      33.108  10.803  31.053  1.00146.47           C
ATOM   1241  C   LEU   158      35.861  14.073  30.763  1.00146.47           C
ATOM   1242  O   LEU   158      36.129  14.169  31.959  1.00146.47           O
ATOM   1243  N   HIS   159      36.792  13.715  29.862  1.00119.02           N
ATOM   1244  CA  HIS   159      38.102  13.286  30.268  1.00119.02           C
ATOM   1245  ND1 HIS   159      39.074  14.980  27.691  1.00119.02           N
ATOM   1246  CG  HIS   159      39.701  13.964  28.374  1.00119.02           C
ATOM   1247  CB  HIS   159      38.996  12.851  29.089  1.00119.02           C
ATOM   1248  NE2 HIS   159      41.258  15.310  27.450  1.00119.02           N
ATOM   1249  CD2 HIS   159      41.035  14.182  28.218  1.00119.02           C
ATOM   1250  CE1 HIS   159      40.050  15.757  27.158  1.00119.02           C
ATOM   1251  C   HIS   159      38.819  14.387  30.994  1.00119.02           C
ATOM   1252  O   HIS   159      39.647  14.111  31.861  1.00119.02           O
ATOM   1253  N   THR   160      38.561  15.661  30.635  1.00114.03           N
ATOM   1254  CA  THR   160      39.222  16.751  31.300  1.00114.03           C
ATOM   1255  CB  THR   160      38.914  18.105  30.719  1.00114.03           C
ATOM   1256  OG1 THR   160      39.843  19.062  31.206  1.00114.03           O
ATOM   1257  CG2 THR   160      37.489  18.524  31.117  1.00114.03           C
ATOM   1258  C   THR   160      38.779  16.743  32.727  1.00114.03           C
ATOM   1259  O   THR   160      39.545  17.067  33.633  1.00114.03           O
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ATOM   1260  N   LEU   161      37.507  16.374  32.946  1.00151.55           N
ATOM   1261  CA  LEU   161      36.944  16.278  34.257  1.00151.55           C
ATOM   1262  CB  LEU   161      35.410  16.159  34.260  1.00151.55           C
ATOM   1263  CG  LEU   161      34.687  17.394  33.696  1.00151.55           C
ATOM   1264  CD1 LEU   161      33.161  17.209  33.727  1.00151.55           C
ATOM   1265  CD2 LEU   161      35.146  18.681  34.396  1.00151.55           C
ATOM   1266  C   LEU   161      37.493  15.023  34.849  1.00151.55           C
ATOM   1267  O   LEU   161      38.563  14.559  34.465  1.00151.55           O
ATOM   1268  N   LEU   162      36.801  14.501  35.871  1.00118.43           N
ATOM   1269  CA  LEU   162      37.173  13.321  36.594  1.00118.43           C
ATOM   1270  CB  LEU   162      36.337  13.126  37.871  1.00118.43           C
ATOM   1271  CG  LEU   162      36.546  14.233  38.922  1.00118.43           C
ATOM   1272  CD1 LEU   162      37.982  14.220  39.467  1.00118.43           C
ATOM   1273  CD2 LEU   162      36.122  15.609  38.383  1.00118.43           C
ATOM   1274  C   LEU   162      37.026  12.068  35.785  1.00118.43           C
ATOM   1275  O   LEU   162      37.840  11.157  35.922  1.00118.43           O
ATOM   1276  N   MET   163      35.985  11.968  34.932  1.00113.88           N
ATOM   1277  CA  MET   163      35.725  10.713  34.281  1.00113.88           C
ATOM   1278  CB  MET   163      34.288  10.588  33.747  1.00113.88           C
ATOM   1279  CG  MET   163      33.261  10.415  34.871  1.00113.88           C
ATOM   1280  SD  MET   163      31.518  10.528  34.363  1.00113.88           S
ATOM   1281  CE  MET   163      31.312  12.266  34.849  1.00113.88           C
ATOM   1282  C   MET   163      36.703  10.454  33.185  1.00113.88           C
ATOM   1283  O   MET   163      36.932  11.296  32.319  1.00113.88           O
ATOM   1284  N   ASN   164      37.317   9.248  33.223  1.00159.69           N
ATOM   1285  CA  ASN   164      38.328   8.818  32.295  1.00159.69           C
ATOM   1286  CB  ASN   164      37.812   8.428  30.892  1.00159.69           C
ATOM   1287  CG  ASN   164      37.297   9.644  30.138  1.00159.69           C
ATOM   1288  OD1 ASN   164      38.053  10.304  29.430  1.00159.69           O
ATOM   1289  ND2 ASN   164      35.974   9.934  30.257  1.00159.69           N
ATOM   1290  C   ASN   164      39.382   9.880  32.196  1.00159.69           C
ATOM   1291  O   ASN   164      39.384  10.849  32.954  1.00159.69           O
ATOM   1292  N   SER   165      40.380   9.688  31.313  1.00103.56           N
ATOM   1293  CA  SER   165      41.354  10.734  31.206  1.00103.56           C
ATOM   1294  CB  SER   165      42.380  10.749  32.353  1.00103.56           C
ATOM   1295  OG  SER   165      43.173   9.572  32.319  1.00103.56           O
ATOM   1296  C   SER   165      42.107  10.540  29.934  1.00103.56           C
ATOM   1297  O   SER   165      42.043   9.477  29.320  1.00103.56           O
ATOM   1298  N   LEU   166      42.815  11.598  29.490  1.00148.60           N
ATOM   1299  CA  LEU   166      43.612  11.512  28.306  1.00148.60           C
ATOM   1300  CB  LEU   166      43.798  12.871  27.595  1.00148.60           C
ATOM   1301  CG  LEU   166      44.437  13.998  28.440  1.00148.60           C
ATOM   1302  CD1 LEU   166      43.624  14.294  29.709  1.00148.60           C
ATOM   1303  CD2 LEU   166      45.927  13.755  28.713  1.00148.60           C
ATOM   1304  C   LEU   166      44.941  10.967  28.707  1.00148.60           C
ATOM   1305  O   LEU   166      45.456  11.280  29.780  1.00148.60           O
ATOM   1306  N   SER   167      45.521  10.095  27.862  1.00 44.64           N
ATOM   1307  CA  SER   167      46.807   9.560  28.189  1.00 44.64           C
ATOM   1308  CB  SER   167      46.754   8.221  28.940  1.00 44.64           C
ATOM   1309  OG  SER   167      46.169   8.409  30.221  1.00 44.64           O
ATOM   1310  C   SER   167      47.540   9.334  26.912  1.00 44.64           C
ATOM   1311  O   SER   167      46.942   9.126  25.857  1.00 44.64           O
ATOM   1312  N   PHE   168      48.881   9.365  26.993  1.00106.15           N
ATOM   1313  CA  PHE   168      49.706   9.176  25.843  1.00106.15           C
ATOM   1314  CB  PHE   168      51.198   9.372  26.154  1.00106.15           C
ATOM   1315  CG  PHE   168      51.507   8.560  27.363  1.00106.15           C
ATOM   1316  CD1 PHE   168      51.809   7.221  27.277  1.00106.15           C
ATOM   1317  CD2 PHE   168      51.485   9.159  28.602  1.00106.15           C
ATOM   1318  CE1 PHE   168      52.087   6.497  28.415  1.00106.15           C
ATOM   1319  CE2 PHE   168      51.761   8.442  29.741  1.00106.15           C
ATOM   1320  CZ  PHE   168      52.064   7.106  29.647  1.00106.15           C
ATOM   1321  C   PHE   168      49.470   7.805  25.307  1.00106.15           C
ATOM   1322  O   PHE   168      49.231   6.856  26.052  1.00106.15           O
ATOM   1323  N   CYS   169      49.513   7.689  23.968  1.00123.71           N
ATOM   1324  CA  CYS   169      49.226   6.453  23.318  1.00123.71           C
ATOM   1325  CB  CYS   169      48.485   6.626  21.985  1.00123.71           C
ATOM   1326  SG  CYS   169      47.671   5.091  21.470  1.00123.71           S
ATOM   1327  C   CYS   169      50.525   5.766  23.082  1.00123.71           C
ATOM   1328  O   CYS   169      51.590   6.316  23.358  1.00123.71           O
ATOM   1329  N   ALA   170      50.456   4.538  22.542  1.00265.18           N
ATOM   1330  CA  ALA   170      51.595   3.677  22.433  1.00265.18           C
ATOM   1331  CB  ALA   170      51.233   2.262  21.956  1.00265.18           C
ATOM   1332  C   ALA   170      52.662   4.201  21.539  1.00265.18           C
ATOM   1333  O   ALA   170      52.418   4.922  20.575  1.00265.18           O
ATOM   1334  N   ASN   171      53.915   3.865  21.897  1.00235.44           N
ATOM   1335  CA  ASN   171      55.023   4.197  21.064  1.00235.44           C
ATOM   1336  CB  ASN   171      55.836   5.400  21.557  1.00235.44           C
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ATOM	1337	CG	ASN	171	56.725	5.820	20.398	1.00235.44	C
ATOM	1338	OD1	ASN	171	56.436	5.507	19.245	1.00235.44	O
ATOM	1339	ND2	ASN	171	57.838	6.539	20.701	1.00235.44	N
ATOM	1340	C	ASN	171	55.940	3.017	21.082	1.00235.44	C
ATOM	1341	O	ASN	171	56.264	2.481	22.141	1.00235.44	O
ATOM	1342	N	HIS	172	56.362	2.571	19.886	1.00222.28	N
ATOM	1343	CA	HIS	172	57.297	1.494	19.756	1.00222.28	C
ATOM	1344	ND1	HIS	172	58.296	-1.669	18.739	1.00222.28	N
ATOM	1345	CG	HIS	172	57.589	-1.053	19.749	1.00222.28	C
ATOM	1346	CB	HIS	172	56.648	0.106	19.560	1.00222.28	C
ATOM	1347	NE2	HIS	172	58.819	-2.737	20.617	1.00222.28	N
ATOM	1348	CD2	HIS	172	57.923	-1.719	20.890	1.00222.28	C
ATOM	1349	CE1	HIS	172	59.014	-2.667	19.313	1.00222.28	C
ATOM	1350	C	HIS	172	58.082	1.862	18.542	1.00222.28	C
ATOM	1351	O	HIS	172	58.171	3.043	18.223	1.00222.28	O
ATOM	1352	N	GLU	173	58.614	0.882	17.794	1.00 74.22	N
ATOM	1353	CA	GLU	173	59.459	1.198	16.679	1.00 74.22	C
ATOM	1354	CB	GLU	173	59.914	-0.048	15.900	1.00 74.22	C
ATOM	1355	CG	GLU	173	60.849	-0.965	16.690	1.00 74.22	C
ATOM	1356	CD	GLU	173	61.211	-2.139	15.792	1.00 74.22	C
ATOM	1357	OE1	GLU	173	60.746	-2.148	14.620	1.00 74.22	O
ATOM	1358	OE2	GLU	173	61.957	-3.039	16.259	1.00 74.22	O
ATOM	1359	C	GLU	173	58.727	2.079	15.711	1.00 74.22	C
ATOM	1360	O	GLU	173	59.286	3.060	15.225	1.00 74.22	O
ATOM	1361	N	ILE	174	57.450	1.778	15.407	1.00 95.45	N
ATOM	1362	CA	ILE	174	56.767	2.607	14.458	1.00 95.45	C
ATOM	1363	CB	ILE	174	55.460	2.039	13.984	1.00 95.45	C
ATOM	1364	CG2	ILE	174	54.784	3.101	13.100	1.00 95.45	C
ATOM	1365	CG1	ILE	174	55.691	0.701	13.262	1.00 95.45	C
ATOM	1366	CD1	ILE	174	56.557	0.828	12.009	1.00 95.45	C
ATOM	1367	C	ILE	174	56.487	3.922	15.114	1.00 95.45	C
ATOM	1368	O	ILE	174	55.857	4.020	16.164	1.00 95.45	O
ATOM	1369	N	PRO	175	56.963	4.942	14.471	1.00104.51	N
ATOM	1370	CA	PRO	175	56.884	6.287	14.964	1.00104.51	C
ATOM	1371	CD	PRO	175	57.278	4.885	13.054	1.00104.51	C
ATOM	1372	CB	PRO	175	57.562	7.134	13.899	1.00104.51	C
ATOM	1373	CG	PRO	175	57.302	6.352	12.598	1.00104.51	C
ATOM	1374	C	PRO	175	55.494	6.777	15.202	1.00104.51	C
ATOM	1375	O	PRO	175	54.633	6.556	14.352	1.00104.51	O
ATOM	1376	N	HIS	176	55.273	7.437	16.362	1.00333.26	N
ATOM	1377	CA	HIS	176	54.051	8.136	16.644	1.00333.26	C
ATOM	1378	ND1	HIS	176	50.591	8.312	17.186	1.00333.26	N
ATOM	1379	CG	HIS	176	51.624	8.486	16.291	1.00333.26	C
ATOM	1380	CB	HIS	176	52.756	7.523	16.094	1.00333.26	C
ATOM	1381	NE2	HIS	176	50.272	10.293	16.221	1.00333.26	N
ATOM	1382	CD2	HIS	176	51.413	9.699	15.712	1.00333.26	C
ATOM	1383	CE1	HIS	176	49.813	9.422	17.103	1.00333.26	C
ATOM	1384	C	HIS	176	53.873	8.290	18.120	1.00333.26	C
ATOM	1385	O	HIS	176	54.341	7.472	18.911	1.00333.26	O
ATOM	1386	N	PHE	177	53.191	9.384	18.518	1.00329.38	N
ATOM	1387	CA	PHE	177	52.876	9.628	19.893	1.00329.38	C
ATOM	1388	CB	PHE	177	53.793	10.683	20.533	1.00329.38	C
ATOM	1389	CG	PHE	177	53.726	10.527	22.011	1.00329.38	C
ATOM	1390	CD1	PHE	177	54.584	9.651	22.635	1.00329.38	C
ATOM	1391	CD2	PHE	177	52.824	11.234	22.769	1.00329.38	C
ATOM	1392	CE1	PHE	177	54.551	9.484	23.998	1.00329.38	C
ATOM	1393	CE2	PHE	177	52.787	11.071	24.134	1.00329.38	C
ATOM	1394	CZ	PHE	177	53.652	10.198	24.749	1.00329.38	C
ATOM	1395	C	PHE	177	51.500	10.213	19.844	1.00329.38	C
ATOM	1396	O	PHE	177	51.213	11.024	18.965	1.00329.38	O
ATOM	1397	N	PHE	178	50.600	9.829	20.770	1.00276.55	N
ATOM	1398	CA	PHE	178	49.273	10.363	20.650	1.00276.55	C
ATOM	1399	CB	PHE	178	48.342	9.438	19.841	1.00276.55	C
ATOM	1400	CG	PHE	178	47.121	10.194	19.437	1.00276.55	C
ATOM	1401	CD1	PHE	178	47.178	11.065	18.374	1.00276.55	C
ATOM	1402	CD2	PHE	178	45.922	10.023	20.091	1.00276.55	C
ATOM	1403	CE1	PHE	178	46.065	11.769	17.978	1.00276.55	C
ATOM	1404	CE2	PHE	178	44.805	10.725	19.698	1.00276.55	C
ATOM	1405	CZ	PHE	178	44.874	11.601	18.642	1.00276.55	C
ATOM	1406	C	PHE	178	48.702	10.500	22.026	1.00276.55	C
ATOM	1407	O	PHE	178	49.327	10.108	23.008	1.00276.55	O
ATOM	1408	N	CYS	179	47.517	11.136	22.140	1.00 88.34	N
ATOM	1409	CA	CYS	179	46.845	11.197	23.408	1.00 88.34	C
ATOM	1410	CB	CYS	179	46.801	12.596	24.034	1.00 88.34	C
ATOM	1411	SG	CYS	179	48.394	13.052	24.765	1.00 88.34	S
ATOM	1412	C	CYS	179	45.431	10.780	23.172	1.00 88.34	C
ATOM	1413	O	CYS	179	44.727	11.382	22.363	1.00 88.34	O

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ATOM   1414  N   ASP   180      44.978   9.728  23.884  1.00 99.42           N
ATOM   1415  CA  ASP   180      43.650   9.226  23.680  1.00 99.42           C
ATOM   1416  CB  ASP   180      43.646   7.884  22.916  1.00 99.42           C
ATOM   1417  CG  ASP   180      42.256   7.606  22.354  1.00 99.42           C
ATOM   1418  OD1 ASP   180      41.409   8.539  22.378  1.00 99.42           O
ATOM   1419  OD2 ASP   180      42.022   6.453  21.901  1.00 99.42           O
ATOM   1420  C   ASP   180      43.026   8.985  25.027  1.00 99.42           C
ATOM   1421  O   ASP   180      43.596   9.317  26.065  1.00 99.42           O
ATOM   1422  N   ILE   181      41.802   8.420  25.013  1.00138.40           N
ATOM   1423  CA  ILE   181      41.042   7.998  26.157  1.00138.40           C
ATOM   1424  CB  ILE   181      39.680   7.473  25.774  1.00138.40           C
ATOM   1425  CG2 ILE   181      38.942   6.966  27.025  1.00138.40           C
ATOM   1426  CG1 ILE   181      38.895   8.579  25.051  1.00138.40           C
ATOM   1427  CD1 ILE   181      38.642   9.805  25.927  1.00138.40           C
ATOM   1428  C   ILE   181      41.854   6.901  26.772  1.00138.40           C
ATOM   1429  O   ILE   181      42.856   6.500  26.181  1.00138.40           O
ATOM   1430  N   ASN   182      41.524   6.431  28.001  1.00146.99           N
ATOM   1431  CA  ASN   182      42.312   5.375  28.588  1.00146.99           C
ATOM   1432  CB  ASN   182      42.616   5.584  30.077  1.00146.99           C
ATOM   1433  CG  ASN   182      43.798   6.523  30.161  1.00146.99           C
ATOM   1434  OD1 ASN   182      43.715   7.601  30.742  1.00146.99           O
ATOM   1435  ND2 ASN   182      44.940   6.092  29.563  1.00146.99           N
ATOM   1436  C   ASN   182      41.677   4.010  28.508  1.00146.99           C
ATOM   1437  O   ASN   182      40.967   3.590  29.423  1.00146.99           O
ATOM   1438  N   PRO   183      41.881   3.329  27.407  1.00188.67           N
ATOM   1439  CA  PRO   183      41.575   1.925  27.311  1.00188.67           C
ATOM   1440  CD  PRO   183      41.628   3.984  26.136  1.00188.67           C
ATOM   1441  CB  PRO   183      41.372   1.654  25.828  1.00188.67           C
ATOM   1442  CG  PRO   183      40.926   2.981  25.235  1.00188.67           C
ATOM   1443  C   PRO   183      42.722   1.112  27.840  1.00188.67           C
ATOM   1444  O   PRO   183      42.602  -0.110  27.921  1.00188.67           O
ATOM   1445  N   LEU   184      43.834   1.782  28.196  1.00250.44           N
ATOM   1446  CA  LEU   184      45.111   1.173  28.461  1.00250.44           C
ATOM   1447  CB  LEU   184      46.225   2.203  28.719  1.00250.44           C
ATOM   1448  CG  LEU   184      46.490   3.132  27.519  1.00250.44           C
ATOM   1449  CD1 LEU   184      45.268   4.012  27.211  1.00250.44           C
ATOM   1450  CD2 LEU   184      47.774   3.951  27.720  1.00250.44           C
ATOM   1451  C   LEU   184      45.103   0.225  29.613  1.00250.44           C
ATOM   1452  O   LEU   184      44.223   0.247  30.467  1.00250.44           O
ATOM   1453  N   LEU   185      46.071  -0.717  29.574  1.00146.85           N
ATOM   1454  CA  LEU   185      46.307  -1.699  30.595  1.00146.85           C
ATOM   1455  CB  LEU   185      47.370  -2.728  30.163  1.00146.85           C
ATOM   1456  CG  LEU   185      47.772  -3.812  31.194  1.00146.85           C
ATOM   1457  CD1 LEU   185      48.694  -3.261  32.294  1.00146.85           C
ATOM   1458  CD2 LEU   185      46.546  -4.538  31.771  1.00146.85           C
ATOM   1459  C   LEU   185      46.824  -1.044  31.832  1.00146.85           C
ATOM   1460  O   LEU   185      46.324  -1.295  32.928  1.00146.85           O
ATOM   1461  N   SER   186      47.840  -0.169  31.682  1.00 62.99           N
ATOM   1462  CA  SER   186      48.474   0.381  32.843  1.00 62.99           C
ATOM   1463  CB  SER   186      49.589   1.386  32.522  1.00 62.99           C
ATOM   1464  OG  SER   186      50.152   1.877  33.729  1.00 62.99           O
ATOM   1465  C   SER   186      47.454   1.098  33.646  1.00 62.99           C
ATOM   1466  O   SER   186      47.197   0.739  34.793  1.00 62.99           O
ATOM   1467  N   LEU   187      46.828   2.129  33.056  1.00 42.38           N
ATOM   1468  CA  LEU   187      45.815   2.780  33.821  1.00 42.38           C
ATOM   1469  CB  LEU   187      45.215   4.014  33.131  1.00 42.38           C
ATOM   1470  CG  LEU   187      46.237   5.159  33.006  1.00 42.38           C
ATOM   1471  CD1 LEU   187      45.583   6.453  32.503  1.00 42.38           C
ATOM   1472  CD2 LEU   187      47.008   5.360  34.320  1.00 42.38           C
ATOM   1473  C   LEU   187      44.767   1.748  34.020  1.00 42.38           C
ATOM   1474  O   LEU   187      44.241   1.587  35.119  1.00 42.38           O
ATOM   1475  N   SER   188      44.456   0.987  32.957  1.00147.55           N
ATOM   1476  CA  SER   188      43.501  -0.049  33.162  1.00147.55           C
ATOM   1477  CB  SER   188      43.897  -1.009  34.301  1.00147.55           C
ATOM   1478  OG  SER   188      42.969  -2.076  34.410  1.00147.55           O
ATOM   1479  C   SER   188      42.231   0.648  33.502  1.00147.55           C
ATOM   1480  O   SER   188      42.081   1.837  33.229  1.00147.55           O
ATOM   1481  N   CYS   189      41.260  -0.078  34.077  1.00172.67           N
ATOM   1482  CA  CYS   189      40.047   0.590  34.416  1.00172.67           C
ATOM   1483  CB  CYS   189      38.811  -0.325  34.321  1.00172.67           C
ATOM   1484  SG  CYS   189      38.954  -1.835  35.327  1.00172.67           S
ATOM   1485  C   CYS   189      40.161   1.088  35.819  1.00172.67           C
ATOM   1486  O   CYS   189      39.443   0.628  36.704  1.00172.67           O
ATOM   1487  N   THR   190      41.036   2.090  36.049  1.00142.96           N
ATOM   1488  CA  THR   190      41.195   2.593  37.382  1.00142.96           C
ATOM   1489  CB  THR   190      42.134   3.761  37.505  1.00142.96           C
ATOM   1490  OG1 THR   190      41.686   4.837  36.695  1.00142.96           O
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ATOM   1491  CG2 THR   190      43.553   3.335  37.107  1.00142.96           C
ATOM   1492  C   THR   190      39.866   3.080  37.843  1.00142.96           C
ATOM   1493  O   THR   190      39.305   4.020  37.279  1.00142.96           O
ATOM   1494  N   ASP   191      39.328   2.442  38.901  1.00127.45           N
ATOM   1495  CA  ASP   191      38.055   2.879  39.380  1.00127.45           C
ATOM   1496  CB  ASP   191      37.468   2.028  40.530  1.00127.45           C
ATOM   1497  CG  ASP   191      38.394   2.010  41.734  1.00127.45           C
ATOM   1498  OD1 ASP   191      39.561   1.558  41.580  1.00127.45           O
ATOM   1499  OD2 ASP   191      37.938   2.424  42.833  1.00127.45           O
ATOM   1500  C   ASP   191      38.138   4.324  39.769  1.00127.45           C
ATOM   1501  O   ASP   191      37.250   5.054  39.332  1.00127.45           O
ATOM   1502  N   PRO   192      39.073   4.840  40.551  1.00206.79           N
ATOM   1503  CA  PRO   192      39.136   6.263  40.709  1.00206.79           C
ATOM   1504  CD  PRO   192      40.323   4.204  40.946  1.00206.79           C
ATOM   1505  CB  PRO   192      40.336   6.533  41.610  1.00206.79           C
ATOM   1506  CG  PRO   192      41.279   5.363  41.277  1.00206.79           C
ATOM   1507  C   PRO   192      39.416   6.705  39.312  1.00206.79           C
ATOM   1508  O   PRO   192      40.366   6.177  38.738  1.00206.79           O
ATOM   1509  N   PHE   193      38.608   7.642  38.771  1.00254.43           N
ATOM   1510  CA  PHE   193      38.697   8.151  37.427  1.00254.43           C
ATOM   1511  CB  PHE   193      40.032   7.927  36.682  1.00254.43           C
ATOM   1512  CG  PHE   193      41.064   8.840  37.257  1.00254.43           C
ATOM   1513  CD1 PHE   193      41.785   8.491  38.376  1.00254.43           C
ATOM   1514  CD2 PHE   193      41.316  10.056  36.665  1.00254.43           C
ATOM   1515  CE1 PHE   193      42.737   9.335  38.898  1.00254.43           C
ATOM   1516  CE2 PHE   193      42.266  10.906  37.182  1.00254.43           C
ATOM   1517  CZ  PHE   193      42.979  10.547  38.301  1.00254.43           C
ATOM   1518  C   PHE   193      37.598   7.516  36.627  1.00254.43           C
ATOM   1519  O   PHE   193      37.084   8.124  35.689  1.00254.43           O
ATOM   1520  N   THR   194      37.210   6.277  37.011  1.00193.95           N
ATOM   1521  CA  THR   194      36.168   5.493  36.393  1.00193.95           C
ATOM   1522  CB  THR   194      34.768   5.945  36.733  1.00193.95           C
ATOM   1523  OG1 THR   194      33.822   5.024  36.211  1.00193.95           O
ATOM   1524  CG2 THR   194      34.503   7.356  36.182  1.00193.95           C
ATOM   1525  C   THR   194      36.350   5.413  34.907  1.00193.95           C
ATOM   1526  O   THR   194      35.485   5.823  34.134  1.00193.95           O
ATOM   1527  N   ASN   195      37.508   4.869  34.479  1.00 73.52           N
ATOM   1528  CA  ASN   195      37.858   4.740  33.091  1.00 73.52           C
ATOM   1529  CB  ASN   195      39.289   4.206  32.882  1.00 73.52           C
ATOM   1530  CG  ASN   195      40.296   5.242  33.360  1.00 73.52           C
ATOM   1531  OD1 ASN   195      39.943   6.378  33.669  1.00 73.52           O
ATOM   1532  ND2 ASN   195      41.595   4.838  33.412  1.00 73.52           N
ATOM   1533  C   ASN   195      36.964   3.765  32.386  1.00 73.52           C
ATOM   1534  O   ASN   195      36.468   4.043  31.297  1.00 73.52           O
ATOM   1535  N   GLU   196      36.709   2.598  33.004  1.00 88.96           N
ATOM   1536  CA  GLU   196      36.014   1.547  32.319  1.00 88.96           C
ATOM   1537  CB  GLU   196      35.877   0.281  33.181  1.00 88.96           C
ATOM   1538  CG  GLU   196      35.361  -0.929  32.405  1.00 88.96           C
ATOM   1539  CD  GLU   196      35.421  -2.136  33.331  1.00 88.96           C
ATOM   1540  OE1 GLU   196      35.086  -1.976  34.535  1.00 88.96           O
ATOM   1541  OE2 GLU   196      35.800  -3.234  32.845  1.00 88.96           O
ATOM   1542  C   GLU   196      34.644   1.985  31.915  1.00 88.96           C
ATOM   1543  O   GLU   196      34.212   1.716  30.796  1.00 88.96           O
ATOM   1544  N   LEU   197      33.923   2.687  32.805  1.00120.99           N
ATOM   1545  CA  LEU   197      32.567   3.058  32.517  1.00120.99           C
ATOM   1546  CB  LEU   197      31.890   3.743  33.723  1.00120.99           C
ATOM   1547  CG  LEU   197      30.395   4.084  33.543  1.00120.99           C
ATOM   1548  CD1 LEU   197      30.169   5.247  32.563  1.00120.99           C
ATOM   1549  CD2 LEU   197      29.587   2.829  33.176  1.00120.99           C
ATOM   1550  C   LEU   197      32.535   3.991  31.346  1.00120.99           C
ATOM   1551  O   LEU   197      31.698   3.845  30.457  1.00120.99           O
ATOM   1552  N   VAL   198      33.458   4.970  31.302  1.00 38.21           N
ATOM   1553  CA  VAL   198      33.424   5.946  30.251  1.00 38.21           C
ATOM   1554  CB  VAL   198      34.481   6.997  30.365  1.00 38.21           C
ATOM   1555  CG1 VAL   198      34.408   7.848  29.086  1.00 38.21           C
ATOM   1556  CG2 VAL   198      34.261   7.792  31.664  1.00 38.21           C
ATOM   1557  C   VAL   198      33.635   5.288  28.930  1.00 38.21           C
ATOM   1558  O   VAL   198      32.974   5.631  27.952  1.00 38.21           O
ATOM   1559  N   ILE   199      34.558   4.314  28.860  1.00 89.75           N
ATOM   1560  CA  ILE   199      34.854   3.729  27.587  1.00 89.75           C
ATOM   1561  CB  ILE   199      35.962   2.724  27.627  1.00 89.75           C
ATOM   1562  CG2 ILE   199      35.468   1.470  28.367  1.00 89.75           C
ATOM   1563  CG1 ILE   199      36.448   2.465  26.195  1.00 89.75           C
ATOM   1564  CD1 ILE   199      37.826   1.818  26.133  1.00 89.75           C
ATOM   1565  C   ILE   199      33.624   3.079  27.039  1.00 89.75           C
ATOM   1566  O   ILE   199      33.362   3.165  25.841  1.00 89.75           O
ATOM   1567  N   PHE   200      32.839   2.397  27.894  1.00 89.96           N
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ATOM   1568  CA  PHE   200      31.630   1.782  27.421  1.00 89.96           C
ATOM   1569  CB  PHE   200      30.852   1.003  28.500  1.00 89.96           C
ATOM   1570  CG  PHE   200      31.602  -0.235  28.854  1.00 89.96           C
ATOM   1571  CD1 PHE   200      31.380  -1.404  28.163  1.00 89.96           C
ATOM   1572  CD2 PHE   200      32.524  -0.234  29.873  1.00 89.96           C
ATOM   1573  CE1 PHE   200      32.067  -2.551  28.485  1.00 89.96           C
ATOM   1574  CE2 PHE   200      33.215  -1.376  30.202  1.00 89.96           C
ATOM   1575  CZ  PHE   200      32.987  -2.539  29.506  1.00 89.96           C
ATOM   1576  C   PHE   200      30.716   2.865  26.949  1.00 89.96           C
ATOM   1577  O   PHE   200      30.066   2.737  25.912  1.00 89.96           O
ATOM   1578  N   ILE   201      30.655   3.977  27.703  1.00 80.63           N
ATOM   1579  CA  ILE   201      29.755   5.043  27.379  1.00 80.63           C
ATOM   1580  CB  ILE   201      29.855   6.192  28.337  1.00 80.63           C
ATOM   1581  CG2 ILE   201      29.006   7.347  27.782  1.00 80.63           C
ATOM   1582  CG1 ILE   201      29.445   5.751  29.750  1.00 80.63           C
ATOM   1583  CD1 ILE   201      28.004   5.252  29.838  1.00 80.63           C
ATOM   1584  C   ILE   201      30.096   5.572  26.023  1.00 80.63           C
ATOM   1585  O   ILE   201      29.209   5.830  25.213  1.00 80.63           O
ATOM   1586  N   THR   202      31.397   5.760  25.744  1.00 37.48           N
ATOM   1587  CA  THR   202      31.807   6.304  24.482  1.00 37.48           C
ATOM   1588  CB  THR   202      33.287   6.527  24.402  1.00 37.48           C
ATOM   1589  OG1 THR   202      33.704   7.445  25.402  1.00 37.48           O
ATOM   1590  CG2 THR   202      33.625   7.060  23.001  1.00 37.48           C
ATOM   1591  C   THR   202      31.458   5.378  23.361  1.00 37.48           C
ATOM   1592  O   THR   202      30.931   5.806  22.336  1.00 37.48           O
ATOM   1593  N   GLY   203      31.739   4.073  23.521  1.00 41.12           N
ATOM   1594  CA  GLY   203      31.526   3.189  22.415  1.00 41.12           C
ATOM   1595  C   GLY   203      30.080   3.151  22.045  1.00 41.12           C
ATOM   1596  O   GLY   203      29.751   3.230  20.865  1.00 41.12           O
ATOM   1597  N   GLY   204      29.177   2.973  23.030  1.00 37.67           N
ATOM   1598  CA  GLY   204      27.781   2.894  22.701  1.00 37.67           C
ATOM   1599  C   GLY   204      27.197   4.215  22.296  1.00 37.67           C
ATOM   1600  O   GLY   204      26.590   4.335  21.233  1.00 37.67           O
ATOM   1601  N   LEU   205      27.374   5.245  23.146  1.00162.54           N
ATOM   1602  CA  LEU   205      26.759   6.523  22.920  1.00162.54           C
ATOM   1603  CB  LEU   205      26.923   7.478  24.113  1.00162.54           C
ATOM   1604  CG  LEU   205      26.211   6.995  25.388  1.00162.54           C
ATOM   1605  CD1 LEU   205      26.403   7.985  26.546  1.00162.54           C
ATOM   1606  CD2 LEU   205      24.734   6.681  25.118  1.00162.54           C
ATOM   1607  C   LEU   205      27.354   7.194  21.732  1.00162.54           C
ATOM   1608  O   LEU   205      26.636   7.703  20.873  1.00162.54           O
ATOM   1609  N   THR   206      28.696   7.215  21.647  1.00219.17           N
ATOM   1610  CA  THR   206      29.256   7.898  20.530  1.00219.17           C
ATOM   1611  CB  THR   206      30.191   9.014  20.932  1.00219.17           C
ATOM   1612  OG1 THR   206      30.719   9.652  19.775  1.00219.17           O
ATOM   1613  CG2 THR   206      31.317   8.476  21.831  1.00219.17           C
ATOM   1614  C   THR   206      29.967   6.931  19.636  1.00219.17           C
ATOM   1615  O   THR   206      31.188   6.792  19.677  1.00219.17           O
ATOM   1616  N   GLY   207      29.210   6.320  18.706  1.00 72.13           N
ATOM   1617  CA  GLY   207      29.815   5.402  17.786  1.00 72.13           C
ATOM   1618  C   GLY   207      28.897   4.266  17.454  1.00 72.13           C
ATOM   1619  O   GLY   207      28.471   4.149  16.308  1.00 72.13           O
ATOM   1620  N   LEU   208      28.528   3.402  18.410  1.00132.03           N
ATOM   1621  CA  LEU   208      27.692   2.314  17.994  1.00132.03           C
ATOM   1622  CB  LEU   208      27.412   1.310  19.126  1.00132.03           C
ATOM   1623  CG  LEU   208      26.521   0.131  18.693  1.00132.03           C
ATOM   1624  CD1 LEU   208      27.202  -0.723  17.614  1.00132.03           C
ATOM   1625  CD2 LEU   208      26.064  -0.696  19.907  1.00132.03           C
ATOM   1626  C   LEU   208      26.379   2.862  17.539  1.00132.03           C
ATOM   1627  O   LEU   208      25.898   2.531  16.456  1.00132.03           O
ATOM   1628  N   ILE   209      25.778   3.753  18.350  1.00 98.43           N
ATOM   1629  CA  ILE   209      24.467   4.256  18.058  1.00 98.43           C
ATOM   1630  CB  ILE   209      23.887   5.097  19.162  1.00 98.43           C
ATOM   1631  CG2 ILE   209      23.774   4.208  20.407  1.00 98.43           C
ATOM   1632  CG1 ILE   209      24.711   6.373  19.393  1.00 98.43           C
ATOM   1633  CD1 ILE   209      23.982   7.410  20.246  1.00 98.43           C
ATOM   1634  C   ILE   209      24.471   5.096  16.821  1.00 98.43           C
ATOM   1635  O   ILE   209      23.621   4.927  15.950  1.00 98.43           O
ATOM   1636  N   CYS   210      25.452   6.005  16.690  1.00 74.36           N
ATOM   1637  CA  CYS   210      25.447   6.924  15.590  1.00 74.36           C
ATOM   1638  CB  CYS   210      26.640   7.895  15.624  1.00 74.36           C
ATOM   1639  SG  CYS   210      26.631   9.055  14.224  1.00 74.36           S
ATOM   1640  C   CYS   210      25.538   6.148  14.317  1.00 74.36           C
ATOM   1641  O   CYS   210      24.906   6.504  13.325  1.00 74.36           O
ATOM   1642  N   VAL   211      26.340   5.069  14.316  1.00 29.77           N
ATOM   1643  CA  VAL   211      26.532   4.285  13.130  1.00 29.77           C
ATOM   1644  CB  VAL   211      27.533   3.183  13.314  1.00 29.77           C
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ATOM   1645  CG1 VAL   211      27.533   2.311  12.046  1.00 29.77           C
ATOM   1646  CG2 VAL   211      28.901   3.812  13.621  1.00 29.77           C
ATOM   1647  C   VAL   211      25.242   3.658  12.704  1.00 29.77           C
ATOM   1648  O   VAL   211      24.898   3.685  11.523  1.00 29.77           O
ATOM   1649  N   LEU   212      24.481   3.079  13.651  1.00 78.58           N
ATOM   1650  CA  LEU   212      23.271   2.410  13.267  1.00 78.58           C
ATOM   1651  CB  LEU   212      22.578   1.656  14.417  1.00 78.58           C
ATOM   1652  CG  LEU   212      23.230   0.297  14.741  1.00 78.58           C
ATOM   1653  CD1 LEU   212      24.700   0.442  15.154  1.00 78.58           C
ATOM   1654  CD2 LEU   212      22.398  -0.485  15.769  1.00 78.58           C
ATOM   1655  C   LEU   212      22.299   3.379  12.676  1.00 78.58           C
ATOM   1656  O   LEU   212      21.649   3.071  11.679  1.00 78.58           O
ATOM   1657  N   CYS   213      22.173   4.583  13.259  1.00 60.93           N
ATOM   1658  CA  CYS   213      21.218   5.520  12.743  1.00 60.93           C
ATOM   1659  CB  CYS   213      21.197   6.841  13.532  1.00 60.93           C
ATOM   1660  SG  CYS   213      19.983   8.025  12.876  1.00 60.93           S
ATOM   1661  C   CYS   213      21.583   5.845  11.329  1.00 60.93           C
ATOM   1662  O   CYS   213      20.736   5.833  10.438  1.00 60.93           O
ATOM   1663  N   LEU   214      22.873   6.119  11.090  1.00 40.30           N
ATOM   1664  CA  LEU   214      23.332   6.491   9.782  1.00 40.30           C
ATOM   1665  CB  LEU   214      24.835   6.806   9.782  1.00 40.30           C
ATOM   1666  CG  LEU   214      25.158   8.064  10.596  1.00 40.30           C
ATOM   1667  CD1 LEU   214      26.661   8.373  10.600  1.00 40.30           C
ATOM   1668  CD2 LEU   214      24.315   9.247  10.101  1.00 40.30           C
ATOM   1669  C   LEU   214      23.103   5.361   8.833  1.00 40.30           C
ATOM   1670  O   LEU   214      22.627   5.571   7.719  1.00 40.30           O
ATOM   1671  N   ILE   215      23.436   4.127   9.249  1.00 31.03           N
ATOM   1672  CA  ILE   215      23.297   2.990   8.387  1.00 31.03           C
ATOM   1673  CB  ILE   215      23.850   1.731   8.990  1.00 31.03           C
ATOM   1674  CG2 ILE   215      23.504   0.565   8.049  1.00 31.03           C
ATOM   1675  CG1 ILE   215      25.357   1.879   9.257  1.00 31.03           C
ATOM   1676  CD1 ILE   215      25.933   0.758  10.117  1.00 31.03           C
ATOM   1677  C   ILE   215      21.851   2.742   8.103  1.00 31.03           C
ATOM   1678  O   ILE   215      21.462   2.542   6.954  1.00 31.03           O
ATOM   1679  N   ILE   216      21.009   2.772   9.152  1.00 75.68           N
ATOM   1680  CA  ILE   216      19.618   2.469   8.988  1.00 75.68           C
ATOM   1681  CB  ILE   216      18.858   2.456  10.286  1.00 75.68           C
ATOM   1682  CG2 ILE   216      18.882   3.865  10.901  1.00 75.68           C
ATOM   1683  CG1 ILE   216      17.445   1.892  10.071  1.00 75.68           C
ATOM   1684  CD1 ILE   216      16.706   1.579  11.372  1.00 75.68           C
ATOM   1685  C   ILE   216      19.012   3.493   8.087  1.00 75.68           C
ATOM   1686  O   ILE   216      18.240   3.165   7.190  1.00 75.68           O
ATOM   1687  N   SER   217      19.374   4.771   8.273  1.00 64.39           N
ATOM   1688  CA  SER   217      18.786   5.798   7.467  1.00 64.39           C
ATOM   1689  CB  SER   217      19.332   7.199   7.795  1.00 64.39           C
ATOM   1690  OG  SER   217      18.711   8.169   6.963  1.00 64.39           O
ATOM   1691  C   SER   217      19.122   5.506   6.045  1.00 64.39           C
ATOM   1692  O   SER   217      18.353   5.816   5.136  1.00 64.39           O
ATOM   1693  N   TYR   218      20.295   4.882   5.821  1.00 41.65           N
ATOM   1694  CA  TYR   218      20.761   4.544   4.509  1.00 41.65           C
ATOM   1695  CB  TYR   218      22.162   3.912   4.525  1.00 41.65           C
ATOM   1696  CG  TYR   218      22.508   3.552   3.120  1.00 41.65           C
ATOM   1697  CD1 TYR   218      22.995   4.499   2.250  1.00 41.65           C
ATOM   1698  CD2 TYR   218      22.341   2.261   2.673  1.00 41.65           C
ATOM   1699  CE1 TYR   218      23.313   4.164   0.955  1.00 41.65           C
ATOM   1700  CE2 TYR   218      22.657   1.919   1.380  1.00 41.65           C
ATOM   1701  CZ  TYR   218      23.143   2.872   0.518  1.00 41.65           C
ATOM   1702  OH  TYR   218      23.467   2.523  -0.811  1.00 41.65           O
ATOM   1703  C   TYR   218      19.830   3.548   3.901  1.00 41.65           C
ATOM   1704  O   TYR   218      19.505   3.639   2.719  1.00 41.65           O
ATOM   1705  N   THR   219      19.353   2.577   4.701  1.00102.39           N
ATOM   1706  CA  THR   219      18.540   1.533   4.151  1.00102.39           C
ATOM   1707  CB  THR   219      18.059   0.519   5.152  1.00102.39           C
ATOM   1708  OG1 THR   219      17.597  -0.640   4.476  1.00102.39           O
ATOM   1709  CG2 THR   219      16.900   1.117   5.967  1.00102.39           C
ATOM   1710  C   THR   219      17.338   2.166   3.533  1.00102.39           C
ATOM   1711  O   THR   219      16.816   1.663   2.540  1.00102.39           O
ATOM   1712  N   ASN   220      16.849   3.268   4.132  1.00 47.70           N
ATOM   1713  CA  ASN   220      15.704   3.964   3.615  1.00 47.70           C
ATOM   1714  CB  ASN   220      15.253   5.117   4.525  1.00 47.70           C
ATOM   1715  CG  ASN   220      14.707   4.516   5.812  1.00 47.70           C
ATOM   1716  OD1 ASN   220      15.462   4.053   6.666  1.00 47.70           O
ATOM   1717  ND2 ASN   220      13.355   4.528   5.961  1.00 47.70           N
ATOM   1718  C   ASN   220      16.041   4.559   2.281  1.00 47.70           C
ATOM   1719  O   ASN   220      15.266   4.472   1.331  1.00 47.70           O
ATOM   1720  N   VAL   221      17.242   5.152   2.180  1.00 74.05           N
ATOM   1721  CA  VAL   221      17.731   5.824   1.012  1.00 74.05           C
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ATOM   1722  CB  VAL   221      19.079   6.447   1.234  1.00 74.05           C
ATOM   1723  CG1 VAL   221      19.542   7.114  -0.072  1.00 74.05           C
ATOM   1724  CG2 VAL   221      18.979   7.413   2.426  1.00 74.05           C
ATOM   1725  C   VAL   221      17.865   4.825  -0.089  1.00 74.05           C
ATOM   1726  O   VAL   221      17.971   5.199  -1.249  1.00 74.05           O
ATOM   1727  N   PHE   222      17.951   3.527   0.234  1.00 91.38           N
ATOM   1728  CA  PHE   222      18.118   2.544  -0.800  1.00 91.38           C
ATOM   1729  CB  PHE   222      18.220   1.115  -0.241  1.00 91.38           C
ATOM   1730  CG  PHE   222      18.377   0.194  -1.401  1.00 91.38           C
ATOM   1731  CD1 PHE   222      19.611  -0.017  -1.973  1.00 91.38           C
ATOM   1732  CD2 PHE   222      17.283  -0.461  -1.919  1.00 91.38           C
ATOM   1733  CE1 PHE   222      19.749  -0.868  -3.044  1.00 91.38           C
ATOM   1734  CE2 PHE   222      17.416  -1.314  -2.989  1.00 91.38           C
ATOM   1735  CZ  PHE   222      18.651  -1.517  -3.555  1.00 91.38           C
ATOM   1736  C   PHE   222      16.962   2.556  -1.761  1.00 91.38           C
ATOM   1737  O   PHE   222      17.164   2.659  -2.970  1.00 91.38           O
ATOM   1738  N   SER   223      15.716   2.465  -1.253  1.00 32.11           N
ATOM   1739  CA  SER   223      14.557   2.393  -2.103  1.00 32.11           C
ATOM   1740  CB  SER   223      13.255   2.172  -1.314  1.00 32.11           C
ATOM   1741  OG  SER   223      12.990   3.298  -0.490  1.00 32.11           O
ATOM   1742  C   SER   223      14.405   3.676  -2.852  1.00 32.11           C
ATOM   1743  O   SER   223      14.082   3.682  -4.039  1.00 32.11           O
ATOM   1744  N   THR   224      14.660   4.803  -2.168  1.00123.53           N
ATOM   1745  CA  THR   224      14.506   6.101  -2.754  1.00123.53           C
ATOM   1746  CB  THR   224      14.381   7.201  -1.738  1.00123.53           C
ATOM   1747  OG1 THR   224      15.543   7.256  -0.923  1.00123.53           O
ATOM   1748  CG2 THR   224      13.139   6.935  -0.873  1.00123.53           C
ATOM   1749  C   THR   224      15.712   6.381  -3.585  1.00123.53           C
ATOM   1750  O   THR   224      16.212   5.494  -4.276  1.00123.53           O
ATOM   1751  N   ILE   225      16.189   7.645  -3.546  1.00131.35           N
ATOM   1752  CA  ILE   225      17.306   8.069  -4.340  1.00131.35           C
ATOM   1753  CB  ILE   225      17.834   9.424  -3.971  1.00131.35           C
ATOM   1754  CG2 ILE   225      16.709  10.448  -4.192  1.00131.35           C
ATOM   1755  CG1 ILE   225      18.392   9.411  -2.538  1.00131.35           C
ATOM   1756  CD1 ILE   225      19.238  10.638  -2.203  1.00131.35           C
ATOM   1757  C   ILE   225      18.427   7.095  -4.176  1.00131.35           C
ATOM   1758  O   ILE   225      18.806   6.742  -3.062  1.00131.35           O
ATOM   1759  N   LEU   226      18.982   6.631  -5.313  1.00136.67           N
ATOM   1760  CA  LEU   226      20.019   5.643  -5.282  1.00136.67           C
ATOM   1761  CB  LEU   226      19.693   4.407  -6.144  1.00136.67           C
ATOM   1762  CG  LEU   226      20.744   3.282  -6.076  1.00136.67           C
ATOM   1763  CD1 LEU   226      20.852   2.705  -4.655  1.00136.67           C
ATOM   1764  CD2 LEU   226      20.475   2.201  -7.135  1.00136.67           C
ATOM   1765  C   LEU   226      21.274   6.267  -5.805  1.00136.67           C
ATOM   1766  O   LEU   226      21.269   7.390  -6.306  1.00136.67           O
ATOM   1767  N   LYS   227      22.396   5.533  -5.681  1.00133.68           N
ATOM   1768  CA  LYS   227      23.682   5.997  -6.109  1.00133.68           C
ATOM   1769  CB  LYS   227      24.796   4.961  -5.884  1.00133.68           C
ATOM   1770  CG  LYS   227      26.174   5.440  -6.347  1.00133.68           C
ATOM   1771  CD  LYS   227      26.757   6.581  -5.514  1.00133.68           C
ATOM   1772  CE  LYS   227      28.122   7.056  -6.016  1.00133.68           C
ATOM   1773  NZ  LYS   227      29.081   5.929  -6.013  1.00133.68           N
ATOM   1774  C   LYS   227      23.633   6.271  -7.573  1.00133.68           C
ATOM   1775  O   LYS   227      24.207   7.254  -8.037  1.00133.68           O
ATOM   1776  N   ILE   228      22.940   5.415  -8.345  1.00138.83           N
ATOM   1777  CA  ILE   228      22.910   5.636  -9.759  1.00138.83           C
ATOM   1778  CB  ILE   228      22.114   4.611 -10.515  1.00138.83           C
ATOM   1779  CG2 ILE   228      20.642   4.727 -10.084  1.00138.83           C
ATOM   1780  CG1 ILE   228      22.340   4.765 -12.028  1.00138.83           C
ATOM   1781  CD1 ILE   228      23.761   4.414 -12.469  1.00138.83           C
ATOM   1782  C   ILE   228      22.302   6.978  -9.989  1.00138.83           C
ATOM   1783  O   ILE   228      21.257   7.320  -9.437  1.00138.83           O
ATOM   1784  N   PRO   229      22.978   7.761 -10.780  1.00149.53           N
ATOM   1785  CA  PRO   229      22.492   9.082 -11.052  1.00149.53           C
ATOM   1786  CD  PRO   229      24.431   7.702 -10.815  1.00149.53           C
ATOM   1787  CB  PRO   229      23.674   9.860 -11.623  1.00149.53           C
ATOM   1788  CG  PRO   229      24.897   9.152 -11.018  1.00149.53           C
ATOM   1789  C   PRO   229      21.312   9.026 -11.962  1.00149.53           C
ATOM   1790  O   PRO   229      21.164   8.056 -12.706  1.00149.53           O
ATOM   1791  N   SER   230      20.457  10.061 -11.902  1.00169.37           N
ATOM   1792  CA  SER   230      19.259  10.183 -12.672  1.00169.37           C
ATOM   1793  CB  SER   230      18.063   9.436 -12.060  1.00169.37           C
ATOM   1794  OG  SER   230      16.912   9.605 -12.877  1.00169.37           O
ATOM   1795  C   SER   230      18.957  11.637 -12.594  1.00169.37           C
ATOM   1796  O   SER   230      19.754  12.460 -13.045  1.00169.37           O
ATOM   1797  N   ALA   231      17.781  11.988 -12.042  1.00 86.23           N
ATOM   1798  CA  ALA   231      17.525  13.378 -11.827  1.00 86.23           C
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ATOM   1799  CB  ALA   231      16.194  13.663 -11.112  1.00 86.23           C
ATOM   1800  C   ALA   231      18.641  13.798 -10.931  1.00 86.23           C
ATOM   1801  O   ALA   231      19.176  12.983 -10.182  1.00 86.23           O
ATOM   1802  N   GLN   232      19.042  15.077 -10.997  1.00197.03           N
ATOM   1803  CA  GLN   232      20.214  15.481 -10.281  1.00197.03           C
ATOM   1804  CB  GLN   232      21.124  16.426 -11.086  1.00197.03           C
ATOM   1805  CG  GLN   232      21.711  15.788 -12.347  1.00197.03           C
ATOM   1806  CD  GLN   232      20.616  15.731 -13.402  1.00197.03           C
ATOM   1807  OE1 GLN   232      19.553  16.329 -13.245  1.00197.03           O
ATOM   1808  NE2 GLN   232      20.882  14.993 -14.513  1.00197.03           N
ATOM   1809  C   GLN   232      19.827  16.210  -9.042  1.00197.03           C
ATOM   1810  O   GLN   232      18.838  15.889  -8.387  1.00197.03           O
ATOM   1811  N   GLY   233      20.667  17.194  -8.670  1.00 76.86           N
ATOM   1812  CA  GLY   233      20.408  18.002  -7.521  1.00 76.86           C
ATOM   1813  C   GLY   233      20.586  17.189  -6.282  1.00 76.86           C
ATOM   1814  O   GLY   233      21.708  16.942  -5.842  1.00 76.86           O
ATOM   1815  N   LYS   234      19.461  16.757  -5.688  1.00131.15           N
ATOM   1816  CA  LYS   234      19.468  16.076  -4.429  1.00131.15           C
ATOM   1817  CB  LYS   234      18.064  15.723  -3.907  1.00131.15           C
ATOM   1818  CG  LYS   234      17.327  14.666  -4.730  1.00131.15           C
ATOM   1819  CD  LYS   234      17.029  15.094  -6.166  1.00131.15           C
ATOM   1820  CE  LYS   234      16.294  14.024  -6.975  1.00131.15           C
ATOM   1821  NZ  LYS   234      16.018  14.525  -8.338  1.00131.15           N
ATOM   1822  C   LYS   234      20.246  14.806  -4.524  1.00131.15           C
ATOM   1823  O   LYS   234      20.894  14.400  -3.561  1.00131.15           O
ATOM   1824  N   ARG   235      20.208  14.139  -5.687  1.00 43.56           N
ATOM   1825  CA  ARG   235      20.868  12.874  -5.820  1.00 43.56           C
ATOM   1826  CB  ARG   235      20.692  12.269  -7.224  1.00 43.56           C
ATOM   1827  CG  ARG   235      21.145  10.812  -7.333  1.00 43.56           C
ATOM   1828  CD  ARG   235      20.875  10.199  -8.709  1.00 43.56           C
ATOM   1829  NE  ARG   235      19.405  10.273  -8.946  1.00 43.56           N
ATOM   1830  CZ  ARG   235      18.589   9.258  -8.537  1.00 43.56           C
ATOM   1831  NH1 ARG   235      19.119   8.161  -7.920  1.00 43.56           N
ATOM   1832  NH2 ARG   235      17.242   9.342  -8.742  1.00 43.56           N
ATOM   1833  C   ARG   235      22.333  13.057  -5.568  1.00 43.56           C
ATOM   1834  O   ARG   235      22.966  12.217  -4.931  1.00 43.56           O
ATOM   1835  N   LYS   236      22.914  14.166  -6.064  1.00 88.63           N
ATOM   1836  CA  LYS   236      24.325  14.401  -5.924  1.00 88.63           C
ATOM   1837  CB  LYS   236      24.788  15.678  -6.646  1.00 88.63           C
ATOM   1838  CG  LYS   236      24.614  15.614  -8.165  1.00 88.63           C
ATOM   1839  CD  LYS   236      24.790  16.965  -8.861  1.00 88.63           C
ATOM   1840  CE  LYS   236      24.614  16.899 -10.379  1.00 88.63           C
ATOM   1841  NZ  LYS   236      25.651  16.022 -10.970  1.00 88.63           N
ATOM   1842  C   LYS   236      24.697  14.551  -4.479  1.00 88.63           C
ATOM   1843  O   LYS   236      25.688  13.981  -4.025  1.00 88.63           O
ATOM   1844  N   ALA   237      23.901  15.309  -3.704  1.00 27.44           N
ATOM   1845  CA  ALA   237      24.247  15.558  -2.334  1.00 27.44           C
ATOM   1846  CB  ALA   237      23.222  16.450  -1.614  1.00 27.44           C
ATOM   1847  C   ALA   237      24.298  14.256  -1.603  1.00 27.44           C
ATOM   1848  O   ALA   237      25.194  14.023  -0.792  1.00 27.44           O
ATOM   1849  N   PHE   238      23.337  13.362  -1.888  1.00 40.28           N
ATOM   1850  CA  PHE   238      23.271  12.097  -1.218  1.00 40.28           C
ATOM   1851  CB  PHE   238      22.079  11.237  -1.672  1.00 40.28           C
ATOM   1852  CG  PHE   238      22.219   9.908  -1.010  1.00 40.28           C
ATOM   1853  CD1 PHE   238      21.825   9.727   0.296  1.00 40.28           C
ATOM   1854  CD2 PHE   238      22.745   8.839  -1.699  1.00 40.28           C
ATOM   1855  CE1 PHE   238      21.955   8.501   0.905  1.00 40.28           C
ATOM   1856  CE2 PHE   238      22.877   7.611  -1.096  1.00 40.28           C
ATOM   1857  CZ  PHE   238      22.483   7.440   0.210  1.00 40.28           C
ATOM   1858  C   PHE   238      24.508  11.312  -1.508  1.00 40.28           C
ATOM   1859  O   PHE   238      25.091  10.713  -0.606  1.00 40.28           O
ATOM   1860  N   SER   239      24.956  11.301  -2.776  1.00 72.77           N
ATOM   1861  CA  SER   239      26.093  10.496  -3.111  1.00 72.77           C
ATOM   1862  CB  SER   239      26.490  10.596  -4.595  1.00 72.77           C
ATOM   1863  OG  SER   239      26.949  11.905  -4.894  1.00 72.77           O
ATOM   1864  C   SER   239      27.262  10.946  -2.295  1.00 72.77           C
ATOM   1865  O   SER   239      28.025  10.125  -1.791  1.00 72.77           O
ATOM   1866  N   THR   240      27.432  12.272  -2.146  1.00 34.24           N
ATOM   1867  CA  THR   240      28.540  12.813  -1.412  1.00 34.24           C
ATOM   1868  CB  THR   240      28.609  14.308  -1.511  1.00 34.24           C
ATOM   1869  OG1 THR   240      28.710  14.704  -2.871  1.00 34.24           O
ATOM   1870  CG2 THR   240      29.843  14.793  -0.736  1.00 34.24           C
ATOM   1871  C   THR   240      28.412  12.460   0.036  1.00 34.24           C
ATOM   1872  O   THR   240      29.379  12.066   0.687  1.00 34.24           O
ATOM   1873  N   CYS   241      27.188  12.560   0.574  1.00 39.79           N
ATOM   1874  CA  CYS   241      26.948  12.314   1.962  1.00 39.79           C
ATOM   1875  CB  CYS   241      25.457  12.423   2.292  1.00 39.79           C
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ATOM   1876  SG  CYS   241      24.804  14.102   2.049  1.00 39.79           S
ATOM   1877  C   CYS   241      27.374  10.913   2.242  1.00 39.79           C
ATOM   1878  O   CYS   241      27.889  10.615   3.319  1.00 39.79           O
ATOM   1879  N   SER   242      27.129  10.011   1.277  1.00 68.86           N
ATOM   1880  CA  SER   242      27.499   8.634   1.409  1.00 68.86           C
ATOM   1881  CB  SER   242      26.963   7.766   0.259  1.00 68.86           C
ATOM   1882  OG  SER   242      27.360   6.415   0.441  1.00 68.86           O
ATOM   1883  C   SER   242      28.995   8.509   1.405  1.00 68.86           C
ATOM   1884  O   SER   242      29.557   7.754   2.196  1.00 68.86           O
ATOM   1885  N   SER   243      29.682   9.251   0.515  1.00 66.82           N
ATOM   1886  CA  SER   243      31.112   9.130   0.404  1.00 66.82           C
ATOM   1887  CB  SER   243      31.708   9.971  -0.739  1.00 66.82           C
ATOM   1888  OG  SER   243      31.580  11.355  -0.455  1.00 66.82           O
ATOM   1889  C   SER   243      31.738   9.592   1.680  1.00 66.82           C
ATOM   1890  O   SER   243      32.718   9.012   2.144  1.00 66.82           O
ATOM   1891  N   HIS   244      31.163  10.638   2.298  1.00 80.02           N
ATOM   1892  CA  HIS   244      31.710  11.160   3.514  1.00 80.02           C
ATOM   1893  ND1 HIS   244      30.769  14.065   2.158  1.00 80.02           N
ATOM   1894  CG  HIS   244      31.310  13.660   3.357  1.00 80.02           C
ATOM   1895  CB  HIS   244      30.961  12.386   4.067  1.00 80.02           C
ATOM   1896  NE2 HIS   244      32.207  15.646   2.774  1.00 80.02           N
ATOM   1897  CD2 HIS   244      32.186  14.637   3.720  1.00 80.02           C
ATOM   1898  CE1 HIS   244      31.341  15.258   1.856  1.00 80.02           C
ATOM   1899  C   HIS   244      31.659  10.089   4.552  1.00 80.02           C
ATOM   1900  O   HIS   244      32.516  10.031   5.430  1.00 80.02           O
ATOM   1901  N   LEU   245      30.623   9.236   4.508  1.00 42.24           N
ATOM   1902  CA  LEU   245      30.515   8.171   5.462  1.00 42.24           C
ATOM   1903  CB  LEU   245      29.225   7.351   5.293  1.00 42.24           C
ATOM   1904  CG  LEU   245      29.150   6.122   6.220  1.00 42.24           C
ATOM   1905  CD1 LEU   245      29.142   6.527   7.702  1.00 42.24           C
ATOM   1906  CD2 LEU   245      27.971   5.211   5.843  1.00 42.24           C
ATOM   1907  C   LEU   245      31.652   7.213   5.288  1.00 42.24           C
ATOM   1908  O   LEU   245      32.282   6.804   6.262  1.00 42.24           O
ATOM   1909  N   SER   246      31.954   6.839   4.031  1.00 66.47           N
ATOM   1910  CA  SER   246      32.967   5.854   3.786  1.00 66.47           C
ATOM   1911  CB  SER   246      33.114   5.504   2.294  1.00 66.47           C
ATOM   1912  OG  SER   246      33.553   6.639   1.562  1.00 66.47           O
ATOM   1913  C   SER   246      34.284   6.368   4.266  1.00 66.47           C
ATOM   1914  O   SER   246      35.039   5.649   4.917  1.00 66.47           O
ATOM   1915  N   VAL   247      34.585   7.646   3.986  1.00 83.54           N
ATOM   1916  CA  VAL   247      35.868   8.172   4.347  1.00 83.54           C
ATOM   1917  CB  VAL   247      36.078   9.594   3.911  1.00 83.54           C
ATOM   1918  CG1 VAL   247      35.109  10.505   4.679  1.00 83.54           C
ATOM   1919  CG2 VAL   247      37.558   9.949   4.126  1.00 83.54           C
ATOM   1920  C   VAL   247      36.025   8.117   5.832  1.00 83.54           C
ATOM   1921  O   VAL   247      37.107   7.826   6.336  1.00 83.54           O
ATOM   1922  N   VAL   248      34.945   8.407   6.577  1.00 33.78           N
ATOM   1923  CA  VAL   248      35.019   8.434   8.008  1.00 33.78           C
ATOM   1924  CB  VAL   248      33.717   8.843   8.634  1.00 33.78           C
ATOM   1925  CG1 VAL   248      33.865   8.773  10.163  1.00 33.78           C
ATOM   1926  CG2 VAL   248      33.338  10.235   8.103  1.00 33.78           C
ATOM   1927  C   VAL   248      35.371   7.076   8.541  1.00 33.78           C
ATOM   1928  O   VAL   248      36.255   6.948   9.386  1.00 33.78           O
ATOM   1929  N   SER   249      34.702   6.021   8.040  1.00 74.64           N
ATOM   1930  CA  SER   249      34.882   4.692   8.555  1.00 74.64           C
ATOM   1931  CB  SER   249      33.981   3.660   7.853  1.00 74.64           C
ATOM   1932  OG  SER   249      32.614   3.965   8.084  1.00 74.64           O
ATOM   1933  C   SER   249      36.292   4.248   8.360  1.00 74.64           C
ATOM   1934  O   SER   249      36.917   3.730   9.284  1.00 74.64           O
ATOM   1935  N   LEU   250      36.848   4.461   7.156  1.00 83.37           N
ATOM   1936  CA  LEU   250      38.172   3.976   6.919  1.00 83.37           C
ATOM   1937  CB  LEU   250      38.675   4.248   5.490  1.00 83.37           C
ATOM   1938  CG  LEU   250      38.061   3.316   4.425  1.00 83.37           C
ATOM   1939  CD1 LEU   250      36.529   3.413   4.386  1.00 83.37           C
ATOM   1940  CD2 LEU   250      38.702   3.555   3.049  1.00 83.37           C
ATOM   1941  C   LEU   250      39.103   4.633   7.880  1.00 83.37           C
ATOM   1942  O   LEU   250      39.979   3.985   8.451  1.00 83.37           O
ATOM   1943  N   PHE   251      38.945   5.948   8.087  1.00122.75           N
ATOM   1944  CA  PHE   251      39.840   6.640   8.961  1.00122.75           C
ATOM   1945  CB  PHE   251      39.792   8.158   8.759  1.00122.75           C
ATOM   1946  CG  PHE   251      40.483   8.309   7.446  1.00122.75           C
ATOM   1947  CD1 PHE   251      39.847   7.954   6.278  1.00122.75           C
ATOM   1948  CD2 PHE   251      41.772   8.785   7.379  1.00122.75           C
ATOM   1949  CE1 PHE   251      40.479   8.077   5.063  1.00122.75           C
ATOM   1950  CE2 PHE   251      42.410   8.911   6.168  1.00122.75           C
ATOM   1951  CZ  PHE   251      41.765   8.556   5.007  1.00122.75           C
ATOM   1952  C   PHE   251      39.667   6.256  10.405  1.00122.75           C
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ATOM   1953  O   PHE   251      40.659   6.128  11.118  1.00122.75           O
ATOM   1954  N   PHE   252      38.413   6.128  10.890  1.00114.97           N
ATOM   1955  CA  PHE   252      38.104   5.811  12.266  1.00114.97           C
ATOM   1956  CB  PHE   252      36.691   6.274  12.669  1.00114.97           C
ATOM   1957  CG  PHE   252      36.576   6.193  14.155  1.00114.97           C
ATOM   1958  CD1 PHE   252      37.132   7.176  14.943  1.00114.97           C
ATOM   1959  CD2 PHE   252      35.908   5.154  14.763  1.00114.97           C
ATOM   1960  CE1 PHE   252      37.032   7.122  16.313  1.00114.97           C
ATOM   1961  CE2 PHE   252      35.805   5.096  16.134  1.00114.97           C
ATOM   1962  CZ  PHE   252      36.368   6.079  16.912  1.00114.97           C
ATOM   1963  C   PHE   252      38.221   4.354  12.633  1.00114.97           C
ATOM   1964  O   PHE   252      38.603   4.027  13.755  1.00114.97           O
ATOM   1965  N   GLY   253      37.880   3.433  11.712  1.00 33.86           N
ATOM   1966  CA  GLY   253      37.741   2.042  12.063  1.00 33.86           C
ATOM   1967  C   GLY   253      39.000   1.453  12.622  1.00 33.86           C
ATOM   1968  O   GLY   253      38.952   0.730  13.616  1.00 33.86           O
ATOM   1969  N   THR   254      40.163   1.731  12.013  1.00 31.83           N
ATOM   1970  CA  THR   254      41.364   1.106  12.488  1.00 31.83           C
ATOM   1971  CB  THR   254      42.568   1.468  11.670  1.00 31.83           C
ATOM   1972  OG1 THR   254      42.825   2.862  11.761  1.00 31.83           O
ATOM   1973  CG2 THR   254      42.303   1.072  10.208  1.00 31.83           C
ATOM   1974  C   THR   254      41.630   1.543  13.893  1.00 31.83           C
ATOM   1975  O   THR   254      41.980   0.736  14.753  1.00 31.83           O
ATOM   1976  N   SER   255      41.473   2.846  14.169  1.00 38.11           N
ATOM   1977  CA  SER   255      41.753   3.337  15.483  1.00 38.11           C
ATOM   1978  CB  SER   255      41.587   4.863  15.589  1.00 38.11           C
ATOM   1979  OG  SER   255      41.879   5.295  16.910  1.00 38.11           O
ATOM   1980  C   SER   255      40.816   2.709  16.458  1.00 38.11           C
ATOM   1981  O   SER   255      41.237   2.144  17.466  1.00 38.11           O
ATOM   1982  N   PHE   256      39.506   2.761  16.154  1.00100.95           N
ATOM   1983  CA  PHE   256      38.510   2.267  17.064  1.00100.95           C
ATOM   1984  CB  PHE   256      37.067   2.467  16.581  1.00100.95           C
ATOM   1985  CG  PHE   256      36.200   1.892  17.648  1.00100.95           C
ATOM   1986  CD1 PHE   256      35.885   2.624  18.773  1.00100.95           C
ATOM   1987  CD2 PHE   256      35.706   0.616  17.527  1.00100.95           C
ATOM   1988  CE1 PHE   256      35.087   2.087  19.756  1.00100.95           C
ATOM   1989  CE2 PHE   256      34.907   0.073  18.506  1.00100.95           C
ATOM   1990  CZ  PHE   256      34.597   0.810  19.624  1.00100.95           C
ATOM   1991  C   PHE   256      38.694   0.802  17.271  1.00100.95           C
ATOM   1992  O   PHE   256      38.573   0.320  18.395  1.00100.95           O
ATOM   1993  N   CYS   257      38.979   0.041  16.200  1.00120.09           N
ATOM   1994  CA  CYS   257      39.069  -1.378  16.385  1.00120.09           C
ATOM   1995  CB  CYS   257      39.300  -2.166  15.079  1.00120.09           C
ATOM   1996  SG  CYS   257      40.933  -1.895  14.333  1.00120.09           S
ATOM   1997  C   CYS   257      40.187  -1.686  17.328  1.00120.09           C
ATOM   1998  O   CYS   257      40.023  -2.473  18.258  1.00120.09           O
ATOM   1999  N   VAL   258      41.356  -1.053  17.129  1.00 42.40           N
ATOM   2000  CA  VAL   258      42.470  -1.318  17.990  1.00 42.40           C
ATOM   2001  CB  VAL   258      43.698  -0.556  17.590  1.00 42.40           C
ATOM   2002  CG1 VAL   258      44.812  -0.851  18.609  1.00 42.40           C
ATOM   2003  CG2 VAL   258      44.057  -0.931  16.141  1.00 42.40           C
ATOM   2004  C   VAL   258      42.096  -0.871  19.363  1.00 42.40           C
ATOM   2005  O   VAL   258      42.382  -1.540  20.356  1.00 42.40           O
ATOM   2006  N   ASP   259      41.421   0.287  19.440  1.00 98.64           N
ATOM   2007  CA  ASP   259      41.053   0.871  20.689  1.00 98.64           C
ATOM   2008  CB  ASP   259      40.332   2.221  20.519  1.00 98.64           C
ATOM   2009  CG  ASP   259      40.191   2.883  21.884  1.00 98.64           C
ATOM   2010  OD1 ASP   259      39.591   2.257  22.799  1.00 98.64           O
ATOM   2011  OD2 ASP   259      40.671   4.039  22.024  1.00 98.64           O
ATOM   2012  C   ASP   259      40.141  -0.050  21.403  1.00 98.64           C
ATOM   2013  O   ASP   259      40.268  -0.184  22.604  1.00 98.64           O
ATOM   2014  N   PHE   260      39.191  -0.711  20.724  1.00 49.18           N
ATOM   2015  CA  PHE   260      38.284  -1.569  21.435  1.00 49.18           C
ATOM   2016  CB  PHE   260      37.160  -2.110  20.534  1.00 49.18           C
ATOM   2017  CG  PHE   260      36.203  -2.855  21.401  1.00 49.18           C
ATOM   2018  CD1 PHE   260      35.222  -2.181  22.091  1.00 49.18           C
ATOM   2019  CD2 PHE   260      36.280  -4.223  21.521  1.00 49.18           C
ATOM   2020  CE1 PHE   260      34.334  -2.860  22.893  1.00 49.18           C
ATOM   2021  CE2 PHE   260      35.395  -4.907  22.321  1.00 49.18           C
ATOM   2022  CZ  PHE   260      34.420  -4.226  23.009  1.00 49.18           C
ATOM   2023  C   PHE   260      39.026  -2.743  21.994  1.00 49.18           C
ATOM   2024  O   PHE   260      38.831  -3.131  23.146  1.00 49.18           O
ATOM   2025  N   SER   261      39.927  -3.326  21.186  1.00 81.89           N
ATOM   2026  CA  SER   261      40.608  -4.527  21.571  1.00 81.89           C
ATOM   2027  CB  SER   261      41.570  -5.041  20.486  1.00 81.89           C
ATOM   2028  OG  SER   261      42.622  -4.110  20.282  1.00 81.89           O
ATOM   2029  C   SER   261      41.408  -4.292  22.812  1.00 81.89           C
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ATOM   2030  O   SER   261      41.492  -5.165  23.673  1.00 81.89           O
ATOM   2031  N   SER   262      41.996  -3.093  22.960  1.00 93.16           N
ATOM   2032  CA  SER   262      42.848  -2.865  24.093  1.00 93.16           C
ATOM   2033  CB  SER   262      43.451  -1.448  24.115  1.00 93.16           C
ATOM   2034  OG  SER   262      44.283  -1.291  25.256  1.00 93.16           O
ATOM   2035  C   SER   262      42.083  -3.075  25.367  1.00 93.16           C
ATOM   2036  O   SER   262      42.603  -3.709  26.283  1.00 93.16           O
ATOM   2037  N   PRO   263      40.880  -2.574  25.505  1.00177.21           N
ATOM   2038  CA  PRO   263      40.168  -2.842  26.707  1.00177.21           C
ATOM   2039  CD  PRO   263      40.594  -1.240  25.097  1.00177.21           C
ATOM   2040  CB  PRO   263      38.919  -1.985  26.683  1.00177.21           C
ATOM   2041  CG  PRO   263      39.419  -0.743  25.957  1.00177.21           C
ATOM   2042  C   PRO   263      39.884  -4.276  26.787  1.00177.21           C
ATOM   2043  O   PRO   263      39.771  -4.792  27.896  1.00177.21           O
ATOM   2044  N   SER   264      39.754  -4.926  25.623  1.00104.38           N
ATOM   2045  CA  SER   264      39.494  -6.323  25.666  1.00104.38           C
ATOM   2046  CB  SER   264      39.435  -6.965  24.271  1.00104.38           C
ATOM   2047  OG  SER   264      38.376  -6.393  23.519  1.00104.38           O
ATOM   2048  C   SER   264      40.651  -6.917  26.389  1.00104.38           C
ATOM   2049  O   SER   264      40.469  -7.623  27.379  1.00104.38           O
ATOM   2050  N   THR   265      41.881  -6.631  25.918  1.00227.60           N
ATOM   2051  CA  THR   265      43.023  -7.164  26.600  1.00227.60           C
ATOM   2052  CB  THR   265      43.705  -8.273  25.840  1.00227.60           C
ATOM   2053  OG1 THR   265      44.819  -8.757  26.574  1.00227.60           O
ATOM   2054  CG2 THR   265      44.120  -7.789  24.441  1.00227.60           C
ATOM   2055  C   THR   265      44.002  -6.068  26.892  1.00227.60           C
ATOM   2056  O   THR   265      44.869  -5.736  26.084  1.00227.60           O
ATOM   2057  N   HIS   266      43.902  -5.487  28.099  1.00145.71           N
ATOM   2058  CA  HIS   266      44.767  -4.408  28.471  1.00145.71           C
ATOM   2059  ND1 HIS   266      41.938  -4.172  30.289  1.00145.71           N
ATOM   2060  CG  HIS   266      43.007  -3.357  29.987  1.00145.71           C
ATOM   2061  CB  HIS   266      44.419  -3.843  29.857  1.00145.71           C
ATOM   2062  NE2 HIS   266      41.129  -2.111  30.088  1.00145.71           N
ATOM   2063  CD2 HIS   266      42.495  -2.102  29.867  1.00145.71           C
ATOM   2064  CE1 HIS   266      40.841  -3.376  30.336  1.00145.71           C
ATOM   2065  C   HIS   266      46.186  -4.896  28.553  1.00145.71           C
ATOM   2066  O   HIS   266      47.096  -4.322  27.959  1.00145.71           O
ATOM   2067  N   SER   267      46.392  -6.017  29.263  1.00103.44           N
ATOM   2068  CA  SER   267      47.694  -6.531  29.592  1.00103.44           C
ATOM   2069  CB  SER   267      47.625  -7.719  30.564  1.00103.44           C
ATOM   2070  OG  SER   267      48.932  -8.184  30.865  1.00103.44           O
ATOM   2071  C   SER   267      48.463  -6.983  28.391  1.00103.44           C
ATOM   2072  O   SER   267      49.689  -7.064  28.448  1.00103.44           O
ATOM   2073  N   ALA   268      47.788  -7.289  27.269  1.00 49.27           N
ATOM   2074  CA  ALA   268      48.504  -7.800  26.132  1.00 49.27           C
ATOM   2075  CB  ALA   268      47.609  -8.087  24.915  1.00 49.27           C
ATOM   2076  C   ALA   268      49.531  -6.793  25.722  1.00 49.27           C
ATOM   2077  O   ALA   268      49.403  -5.602  25.999  1.00 49.27           O
ATOM   2078  N   GLN   269      50.616  -7.262  25.075  1.00130.72           N
ATOM   2079  CA  GLN   269      51.647  -6.346  24.691  1.00130.72           C
ATOM   2080  CB  GLN   269      53.059  -6.964  24.729  1.00130.72           C
ATOM   2081  CG  GLN   269      53.277  -8.118  23.749  1.00130.72           C
ATOM   2082  CD  GLN   269      53.761  -7.538  22.428  1.00130.72           C
ATOM   2083  OE1 GLN   269      53.870  -8.247  21.429  1.00130.72           O
ATOM   2084  NE2 GLN   269      54.065  -6.212  22.420  1.00130.72           N
ATOM   2085  C   GLN   269      51.360  -5.857  23.308  1.00130.72           C
ATOM   2086  O   GLN   269      51.169  -6.642  22.380  1.00130.72           O
ATOM   2087  N   LYS   270      51.302  -4.518  23.152  1.00200.81           N
ATOM   2088  CA  LYS   270      51.021  -3.919  21.881  1.00200.81           C
ATOM   2089  CB  LYS   270      49.698  -3.132  21.843  1.00200.81           C
ATOM   2090  CG  LYS   270      49.634  -1.982  22.850  1.00200.81           C
ATOM   2091  CD  LYS   270      49.682  -2.438  24.310  1.00200.81           C
ATOM   2092  CE  LYS   270      48.313  -2.821  24.878  1.00200.81           C
ATOM   2093  NZ  LYS   270      47.752  -3.965  24.125  1.00200.81           N
ATOM   2094  C   LYS   270      52.127  -2.957  21.569  1.00200.81           C
ATOM   2095  O   LYS   270      52.861  -2.536  22.461  1.00200.81           O
ATOM   2096  N   ASP   271      52.270  -2.607  20.271  1.00203.45           N
ATOM   2097  CA  ASP   271      53.311  -1.748  19.774  1.00203.45           C
ATOM   2098  CB  ASP   271      53.842  -2.169  18.394  1.00203.45           C
ATOM   2099  CG  ASP   271      52.700  -2.074  17.392  1.00203.45           C
ATOM   2100  OD1 ASP   271      51.563  -2.483  17.748  1.00203.45           O
ATOM   2101  OD2 ASP   271      52.954  -1.598  16.253  1.00203.45           O
ATOM   2102  C   ASP   271      52.834  -0.326  19.660  1.00203.45           C
ATOM   2103  O   ASP   271      51.979   0.124  20.420  1.00203.45           O
ATOM   2104  N   THR   272      53.413   0.399  18.672  1.00220.18           N
ATOM   2105  CA  THR   272      53.241   1.802  18.369  1.00220.18           C
ATOM   2106  CB  THR   272      54.043   2.229  17.191  1.00220.18           C
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ATOM   2107  OG1 THR   272      53.463   1.724  15.997  1.00220.18           O
ATOM   2108  CG2 THR   272      55.417   1.594  17.348  1.00220.18           C
ATOM   2109  C   THR   272      51.837   2.056  17.915  1.00220.18           C
ATOM   2110  O   THR   272      51.014   1.147  17.928  1.00220.18           O
ATOM   2111  N   VAL   273      51.524   3.321  17.520  1.00255.67           N
ATOM   2112  CA  VAL   273      50.187   3.635  17.095  1.00255.67           C
ATOM   2113  CB  VAL   273      49.462   4.456  18.110  1.00255.67           C
ATOM   2114  CG1 VAL   273      49.207   3.544  19.320  1.00255.67           C
ATOM   2115  CG2 VAL   273      50.336   5.675  18.459  1.00255.67           C
ATOM   2116  C   VAL   273      50.107   4.322  15.763  1.00255.67           C
ATOM   2117  O   VAL   273      50.102   5.549  15.669  1.00255.67           O
ATOM   2118  N   ALA   274      50.021   3.518  14.684  1.00 61.05           N
ATOM   2119  CA  ALA   274      49.829   4.016  13.351  1.00 61.05           C
ATOM   2120  CB  ALA   274      50.051   2.940  12.276  1.00 61.05           C
ATOM   2121  C   ALA   274      48.431   4.537  13.176  1.00 61.05           C
ATOM   2122  O   ALA   274      48.219   5.600  12.596  1.00 61.05           O
ATOM   2123  N   SER   275      47.430   3.796  13.695  1.00 38.19           N
ATOM   2124  CA  SER   275      46.046   4.113  13.466  1.00 38.19           C
ATOM   2125  CB  SER   275      45.092   3.078  14.085  1.00 38.19           C
ATOM   2126  OG  SER   275      45.229   3.067  15.499  1.00 38.19           O
ATOM   2127  C   SER   275      45.715   5.445  14.050  1.00 38.19           C
ATOM   2128  O   SER   275      44.975   6.224  13.452  1.00 38.19           O
ATOM   2129  N   VAL   276      46.256   5.741  15.242  1.00 97.40           N
ATOM   2130  CA  VAL   276      45.933   6.975  15.888  1.00 97.40           C
ATOM   2131  CB  VAL   276      46.530   7.074  17.256  1.00 97.40           C
ATOM   2132  CG1 VAL   276      45.902   5.980  18.137  1.00 97.40           C
ATOM   2133  CG2 VAL   276      48.053   6.957  17.116  1.00 97.40           C
ATOM   2134  C   VAL   276      46.424   8.120  15.054  1.00 97.40           C
ATOM   2135  O   VAL   276      45.710   9.101  14.866  1.00 97.40           O
ATOM   2136  N   MET   277      47.662   8.041  14.532  1.00137.93           N
ATOM   2137  CA  MET   277      48.181   9.114  13.725  1.00137.93           C
ATOM   2138  CB  MET   277      49.681   8.979  13.390  1.00137.93           C
ATOM   2139  CG  MET   277      50.028   7.896  12.372  1.00137.93           C
ATOM   2140  SD  MET   277      51.780   7.876  11.886  1.00137.93           S
ATOM   2141  CE  MET   277      51.682   9.369  10.854  1.00137.93           C
ATOM   2142  C   MET   277      47.435   9.184  12.430  1.00137.93           C
ATOM   2143  O   MET   277      47.205  10.263  11.889  1.00137.93           O
ATOM   2144  N   TYR   278      47.032   8.006  11.924  1.00137.89           N
ATOM   2145  CA  TYR   278      46.419   7.809  10.640  1.00137.89           C
ATOM   2146  CB  TYR   278      46.081   6.318  10.453  1.00137.89           C
ATOM   2147  CG  TYR   278      46.429   5.889   9.071  1.00137.89           C
ATOM   2148  CD1 TYR   278      45.604   6.083   7.986  1.00137.89           C
ATOM   2149  CD2 TYR   278      47.635   5.258   8.892  1.00137.89           C
ATOM   2150  CE1 TYR   278      45.997   5.654   6.737  1.00137.89           C
ATOM   2151  CE2 TYR   278      48.030   4.830   7.653  1.00137.89           C
ATOM   2152  CZ  TYR   278      47.211   5.028   6.569  1.00137.89           C
ATOM   2153  OH  TYR   278      47.620   4.584   5.292  1.00137.89           O
ATOM   2154  C   TYR   278      45.120   8.566  10.613  1.00137.89           C
ATOM   2155  O   TYR   278      44.777   9.216   9.626  1.00137.89           O
ATOM   2156  N   THR   279      44.381   8.512  11.735  1.00128.73           N
ATOM   2157  CA  THR   279      43.066   9.074  11.898  1.00128.73           C
ATOM   2158  CB  THR   279      42.453   8.794  13.243  1.00128.73           C
ATOM   2159  OG1 THR   279      41.058   9.050  13.201  1.00128.73           O
ATOM   2160  CG2 THR   279      43.103   9.710  14.292  1.00128.73           C
ATOM   2161  C   THR   279      43.124  10.568  11.751  1.00128.73           C
ATOM   2162  O   THR   279      42.122  11.205  11.434  1.00128.73           O
ATOM   2163  N   VAL   280      44.309  11.156  11.987  1.00 74.67           N
ATOM   2164  CA  VAL   280      44.573  12.571  11.982  1.00 74.67           C
ATOM   2165  CB  VAL   280      46.025  12.878  12.249  1.00 74.67           C
ATOM   2166  CG1 VAL   280      46.253  14.398  12.188  1.00 74.67           C
ATOM   2167  CG2 VAL   280      46.405  12.262  13.604  1.00 74.67           C
ATOM   2168  C   VAL   280      44.222  13.148  10.641  1.00 74.67           C
ATOM   2169  O   VAL   280      44.103  14.361  10.497  1.00 74.67           O
ATOM   2170  N   VAL   281      44.116  12.305   9.604  1.00 59.96           N
ATOM   2171  CA  VAL   281      43.759  12.746   8.282  1.00 59.96           C
ATOM   2172  CB  VAL   281      43.737  11.630   7.277  1.00 59.96           C
ATOM   2173  CG1 VAL   281      43.225  12.177   5.935  1.00 59.96           C
ATOM   2174  CG2 VAL   281      45.145  11.018   7.202  1.00 59.96           C
ATOM   2175  C   VAL   281      42.375  13.331   8.325  1.00 59.96           C
ATOM   2176  O   VAL   281      41.985  14.102   7.449  1.00 59.96           O
ATOM   2177  N   THR   282      41.587  12.974   9.354  1.00 81.33           N
ATOM   2178  CA  THR   282      40.212  13.368   9.444  1.00 81.33           C
ATOM   2179  CB  THR   282      39.488  12.764  10.623  1.00 81.33           C
ATOM   2180  OG1 THR   282      40.092  13.114  11.858  1.00 81.33           O
ATOM   2181  CG2 THR   282      39.501  11.237  10.452  1.00 81.33           C
ATOM   2182  C   THR   282      40.066  14.867   9.407  1.00 81.33           C
ATOM   2183  O   THR   282      39.015  15.338   8.976  1.00 81.33           O
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ATOM   2184  N   PRO   283      40.983  15.671   9.870  1.00171.54           N
ATOM   2185  CA  PRO   283      40.792  17.082   9.671  1.00171.54           C
ATOM   2186  CD  PRO   283      41.601  15.423  11.161  1.00171.54           C
ATOM   2187  CB  PRO   283      41.782  17.778  10.601  1.00171.54           C
ATOM   2188  CG  PRO   283      41.891  16.800  11.781  1.00171.54           C
ATOM   2189  C   PRO   283      40.844  17.563   8.241  1.00171.54           C
ATOM   2190  O   PRO   283      40.353  18.660   7.990  1.00171.54           O
ATOM   2191  N   MET   284      41.589  16.881   7.344  1.00160.37           N
ATOM   2192  CA  MET   284      41.684  17.227   5.939  1.00160.37           C
ATOM   2193  CB  MET   284      43.025  16.777   5.333  1.00160.37           C
ATOM   2194  CG  MET   284      43.196  17.155   3.860  1.00160.37           C
ATOM   2195  SD  MET   284      44.777  16.635   3.124  1.00160.37           S
ATOM   2196  CE  MET   284      44.429  17.324   1.481  1.00160.37           C
ATOM   2197  C   MET   284      40.616  16.723   4.996  1.00160.37           C
ATOM   2198  O   MET   284      40.138  17.456   4.131  1.00160.37           O
ATOM   2199  N   LEU   285      40.201  15.453   5.157  1.00 63.80           N
ATOM   2200  CA  LEU   285      39.469  14.748   4.133  1.00 63.80           C
ATOM   2201  CB  LEU   285      39.191  13.288   4.518  1.00 63.80           C
ATOM   2202  CG  LEU   285      40.473  12.461   4.713  1.00 63.80           C
ATOM   2203  CD1 LEU   285      40.138  11.010   5.081  1.00 63.80           C
ATOM   2204  CD2 LEU   285      41.406  12.577   3.497  1.00 63.80           C
ATOM   2205  C   LEU   285      38.157  15.366   3.788  1.00 63.80           C
ATOM   2206  O   LEU   285      37.788  15.418   2.615  1.00 63.80           O
ATOM   2207  N   ASN   286      37.402  15.851   4.780  1.00129.53           N
ATOM   2208  CA  ASN   286      36.088  16.301   4.446  1.00129.53           C
ATOM   2209  CB  ASN   286      35.182  16.564   5.671  1.00129.53           C
ATOM   2210  CG  ASN   286      35.902  17.401   6.714  1.00129.53           C
ATOM   2211  OD1 ASN   286      36.774  16.908   7.429  1.00129.53           O
ATOM   2212  ND2 ASN   286      35.533  18.706   6.800  1.00129.53           N
ATOM   2213  C   ASN   286      36.073  17.438   3.460  1.00129.53           C
ATOM   2214  O   ASN   286      35.243  17.384   2.552  1.00129.53           O
ATOM   2215  N   PRO   287      36.902  18.453   3.514  1.00 72.06           N
ATOM   2216  CA  PRO   287      36.806  19.517   2.552  1.00 72.06           C
ATOM   2217  CD  PRO   287      37.612  18.860   4.715  1.00 72.06           C
ATOM   2218  CB  PRO   287      37.739  20.619   3.053  1.00 72.06           C
ATOM   2219  CG  PRO   287      37.827  20.373   4.570  1.00 72.06           C
ATOM   2220  C   PRO   287      37.148  19.053   1.173  1.00 72.06           C
ATOM   2221  O   PRO   287      36.623  19.605   0.207  1.00 72.06           O
ATOM   2222  N   PHE   288      38.043  18.057   1.063  1.00 46.31           N
ATOM   2223  CA  PHE   288      38.500  17.579  -0.208  1.00 46.31           C
ATOM   2224  CB  PHE   288      39.620  16.537  -0.036  1.00 46.31           C
ATOM   2225  CG  PHE   288      40.203  16.201  -1.363  1.00 46.31           C
ATOM   2226  CD1 PHE   288      40.997  17.110  -2.025  1.00 46.31           C
ATOM   2227  CD2 PHE   288      39.987  14.967  -1.930  1.00 46.31           C
ATOM   2228  CE1 PHE   288      41.548  16.802  -3.247  1.00 46.31           C
ATOM   2229  CE2 PHE   288      40.537  14.655  -3.150  1.00 46.31           C
ATOM   2230  CZ  PHE   288      41.316  15.572  -3.813  1.00 46.31           C
ATOM   2231  C   PHE   288      37.350  16.953  -0.928  1.00 46.31           C
ATOM   2232  O   PHE   288      37.109  17.230  -2.102  1.00 46.31           O
ATOM   2233  N   ILE   289      36.586  16.106  -0.218  1.00 34.08           N
ATOM   2234  CA  ILE   289      35.482  15.418  -0.819  1.00 34.08           C
ATOM   2235  CB  ILE   289      34.804  14.472   0.129  1.00 34.08           C
ATOM   2236  CG2 ILE   289      33.555  13.910  -0.572  1.00 34.08           C
ATOM   2237  CG1 ILE   289      35.787  13.385   0.595  1.00 34.08           C
ATOM   2238  CD1 ILE   289      35.269  12.556   1.769  1.00 34.08           C
ATOM   2239  C   ILE   289      34.471  16.434  -1.244  1.00 34.08           C
ATOM   2240  O   ILE   289      33.868  16.319  -2.310  1.00 34.08           O
ATOM   2241  N   TYR   290      34.262  17.457  -0.398  1.00 81.90           N
ATOM   2242  CA  TYR   290      33.256  18.456  -0.610  1.00 81.90           C
ATOM   2243  CB  TYR   290      33.185  19.388   0.616  1.00 81.90           C
ATOM   2244  CG  TYR   290      31.986  20.269   0.559  1.00 81.90           C
ATOM   2245  CD1 TYR   290      30.722  19.726   0.542  1.00 81.90           C
ATOM   2246  CD2 TYR   290      32.125  21.636   0.590  1.00 81.90           C
ATOM   2247  CE1 TYR   290      29.612  20.536   0.511  1.00 81.90           C
ATOM   2248  CE2 TYR   290      31.019  22.450   0.561  1.00 81.90           C
ATOM   2249  CZ  TYR   290      29.760  21.902   0.518  1.00 81.90           C
ATOM   2250  OH  TYR   290      28.622  22.735   0.489  1.00 81.90           O
ATOM   2251  C   TYR   290      33.555  19.240  -1.855  1.00 81.90           C
ATOM   2252  O   TYR   290      32.680  19.428  -2.700  1.00 81.90           O
ATOM   2253  N   SER   291      34.809  19.696  -2.024  1.00 67.59           N
ATOM   2254  CA  SER   291      35.140  20.482  -3.178  1.00 67.59           C
ATOM   2255  CB  SER   291      36.585  21.009  -3.143  1.00 67.59           C
ATOM   2256  OG  SER   291      36.856  21.773  -4.309  1.00 67.59           O
ATOM   2257  C   SER   291      35.006  19.627  -4.397  1.00 67.59           C
ATOM   2258  O   SER   291      34.491  20.070  -5.421  1.00 67.59           O
ATOM   2259  N   LEU   292      35.475  18.369  -4.314  1.00 58.30           N
ATOM   2260  CA  LEU   292      35.441  17.502  -5.453  1.00 58.30           C
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ATOM   2261  CB  LEU   292      36.175  16.167  -5.248  1.00 58.30           C
ATOM   2262  CG  LEU   292      37.698  16.314  -5.109  1.00 58.30           C
ATOM   2263  CD1 LEU   292      38.382  14.940  -5.137  1.00 58.30           C
ATOM   2264  CD2 LEU   292      38.267  17.286  -6.158  1.00 58.30           C
ATOM   2265  C   LEU   292      34.038  17.166  -5.841  1.00 58.30           C
ATOM   2266  O   LEU   292      33.717  17.161  -7.029  1.00 58.30           O
ATOM   2267  N   ARG   293      33.148  16.866  -4.873  1.00223.04           N
ATOM   2268  CA  ARG   293      31.855  16.463  -5.344  1.00223.04           C
ATOM   2269  CB  ARG   293      31.342  15.166  -4.697  1.00223.04           C
ATOM   2270  CG  ARG   293      30.195  14.534  -5.488  1.00223.04           C
ATOM   2271  CD  ARG   293      30.660  13.917  -6.810  1.00223.04           C
ATOM   2272  NE  ARG   293      29.450  13.502  -7.574  1.00223.04           N
ATOM   2273  CZ  ARG   293      28.849  14.390  -8.419  1.00223.04           C
ATOM   2274  NH1 ARG   293      29.361  15.647  -8.562  1.00223.04           N
ATOM   2275  NH2 ARG   293      27.742  14.020  -9.127  1.00223.04           N
ATOM   2276  C   ARG   293      30.843  17.527  -5.062  1.00223.04           C
ATOM   2277  O   ARG   293      29.746  17.240  -4.585  1.00223.04           O
ATOM   2278  N   ASN   294      31.171  18.792  -5.373  1.00 86.09           N
ATOM   2279  CA  ASN   294      30.186  19.818  -5.203  1.00 86.09           C
ATOM   2280  CB  ASN   294      30.267  20.493  -3.823  1.00 86.09           C
ATOM   2281  CG  ASN   294      28.928  21.152  -3.522  1.00 86.09           C
ATOM   2282  OD1 ASN   294      28.603  22.212  -4.053  1.00 86.09           O
ATOM   2283  ND2 ASN   294      28.120  20.498  -2.646  1.00 86.09           N
ATOM   2284  C   ASN   294      30.468  20.839  -6.257  1.00 86.09           C
ATOM   2285  O   ASN   294      31.405  21.629  -6.144  1.00 86.09           O
ATOM   2286  N   GLN   295      29.646  20.856  -7.321  1.00 84.89           N
ATOM   2287  CA  GLN   295      29.905  21.764  -8.400  1.00 84.89           C
ATOM   2288  CB  GLN   295      28.921  21.598  -9.568  1.00 84.89           C
ATOM   2289  CG  GLN   295      29.187  22.559 -10.729  1.00 84.89           C
ATOM   2290  CD  GLN   295      28.149  22.298 -11.811  1.00 84.89           C
ATOM   2291  OE1 GLN   295      27.899  21.155 -12.188  1.00 84.89           O
ATOM   2292  NE2 GLN   295      27.515  23.391 -12.317  1.00 84.89           N
ATOM   2293  C   GLN   295      29.767  23.169  -7.915  1.00 84.89           C
ATOM   2294  O   GLN   295      30.594  24.020  -8.234  1.00 84.89           O
ATOM   2295  N   GLU   296      28.711  23.443  -7.124  1.00 55.54           N
ATOM   2296  CA  GLU   296      28.449  24.784  -6.683  1.00 55.54           C
ATOM   2297  CB  GLU   296      27.093  24.931  -5.974  1.00 55.54           C
ATOM   2298  CG  GLU   296      26.828  26.361  -5.502  1.00 55.54           C
ATOM   2299  CD  GLU   296      25.469  26.395  -4.821  1.00 55.54           C
ATOM   2300  OE1 GLU   296      24.695  25.416  -4.989  1.00 55.54           O
ATOM   2301  OE2 GLU   296      25.192  27.399  -4.113  1.00 55.54           O
ATOM   2302  C   GLU   296      29.493  25.275  -5.722  1.00 55.54           C
ATOM   2303  O   GLU   296      29.920  26.426  -5.808  1.00 55.54           O
ATOM   2304  N   ILE   297      29.909  24.427  -4.760  1.00120.45           N
ATOM   2305  CA  ILE   297      30.889  24.828  -3.784  1.00120.45           C
ATOM   2306  CB  ILE   297      31.136  23.769  -2.758  1.00120.45           C
ATOM   2307  CG2 ILE   297      32.382  24.167  -1.944  1.00120.45           C
ATOM   2308  CG1 ILE   297      29.880  23.584  -1.905  1.00120.45           C
ATOM   2309  CD1 ILE   297      29.557  24.833  -1.089  1.00120.45           C
ATOM   2310  C   ILE   297      32.165  25.061  -4.489  1.00120.45           C
ATOM   2311  O   ILE   297      32.846  26.062  -4.278  1.00120.45           O
ATOM   2312  N   LYS   298      32.521  24.130  -5.385  1.00256.30           N
ATOM   2313  CA  LYS   298      33.671  24.408  -6.166  1.00256.30           C
ATOM   2314  CB  LYS   298      34.141  23.248  -7.060  1.00256.30           C
ATOM   2315  CG  LYS   298      33.162  22.870  -8.174  1.00256.30           C
ATOM   2316  CD  LYS   298      33.790  21.965  -9.235  1.00256.30           C
ATOM   2317  CE  LYS   298      32.829  21.571 -10.358  1.00256.30           C
ATOM   2318  NZ  LYS   298      33.525  20.702 -11.334  1.00256.30           N
ATOM   2319  C   LYS   298      33.168  25.507  -7.033  1.00256.30           C
ATOM   2320  O   LYS   298      31.986  25.791  -7.094  1.00256.30           O
ATOM   2321  N   SER   299      34.029  26.248  -7.693  1.00256.03           N
ATOM   2322  CA  SER   299      33.522  27.311  -8.508  1.00256.03           C
ATOM   2323  CB  SER   299      32.441  26.902  -9.533  1.00256.03           C
ATOM   2324  OG  SER   299      32.026  28.038 -10.276  1.00256.03           O
ATOM   2325  C   SER   299      33.022  28.464  -7.668  1.00256.03           C
ATOM   2326  O   SER   299      33.134  29.607  -8.096  1.00256.03           O
ATOM   2327  N   SER   300      32.469  28.247  -6.453  1.00125.73           N
ATOM   2328  CA  SER   300      32.181  29.374  -5.620  1.00125.73           C
ATOM   2329  CB  SER   300      31.282  29.070  -4.408  1.00125.73           C
ATOM   2330  OG  SER   300      32.006  28.342  -3.428  1.00125.73           O
ATOM   2331  C   SER   300      33.529  29.707  -5.116  1.00125.73           C
ATOM   2332  O   SER   300      33.881  30.862  -4.881  1.00125.73           O
ATOM   2333  N   LEU   301      34.311  28.625  -4.927  1.00156.57           N
ATOM   2334  CA  LEU   301      35.670  28.723  -4.499  1.00156.57           C
ATOM   2335  CB  LEU   301      36.307  27.346  -4.244  1.00156.57           C
ATOM   2336  CG  LEU   301      35.562  26.482  -3.207  1.00156.57           C
ATOM   2337  CD1 LEU   301      36.274  25.136  -2.992  1.00156.57           C
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ATOM   2338  CD2 LEU   301      35.320  27.243  -1.897  1.00156.57           C
ATOM   2339  C   LEU   301      36.430  29.340  -5.623  1.00156.57           C
ATOM   2340  O   LEU   301      37.228  30.253  -5.421  1.00156.57           O
ATOM   2341  N   ARG   302      36.181  28.856  -6.857  1.00120.40           N
ATOM   2342  CA  ARG   302      36.919  29.385  -7.971  1.00120.40           C
ATOM   2343  CB  ARG   302      36.618  28.668  -9.299  1.00120.40           C
ATOM   2344  CG  ARG   302      37.125  27.225  -9.335  1.00120.40           C
ATOM   2345  CD  ARG   302      37.075  26.593 -10.727  1.00120.40           C
ATOM   2346  NE  ARG   302      38.080  27.301 -11.571  1.00120.40           N
ATOM   2347  CZ  ARG   302      39.388  26.912 -11.547  1.00120.40           C
ATOM   2348  NH1 ARG   302      39.777  25.872 -10.753  1.00120.40           N
ATOM   2349  NH2 ARG   302      40.308  27.565 -12.316  1.00120.40           N
ATOM   2350  C   ARG   302      36.549  30.821  -8.132  1.00120.40           C
ATOM   2351  O   ARG   302      37.397  31.669  -8.412  1.00120.40           O
ATOM   2352  N   LYS   303      35.255  31.134  -7.944  1.00 73.10           N
ATOM   2353  CA  LYS   303      34.830  32.493  -8.110  1.00 73.10           C
ATOM   2354  CB  LYS   303      33.331  32.716  -7.829  1.00 73.10           C
ATOM   2355  CG  LYS   303      32.385  32.128  -8.874  1.00 73.10           C
ATOM   2356  CD  LYS   303      30.916  32.146  -8.447  1.00 73.10           C
ATOM   2357  CE  LYS   303      30.579  31.136  -7.350  1.00 73.10           C
ATOM   2358  NZ  LYS   303      29.145  31.220  -6.996  1.00 73.10           N
ATOM   2359  C   LYS   303      35.556  33.332  -7.115  1.00 73.10           C
ATOM   2360  O   LYS   303      35.976  34.439  -7.437  1.00 73.10           O
ATOM   2361  N   LEU   304      35.683  32.854  -5.862  1.00156.60           N
ATOM   2362  CA  LEU   304      36.362  33.645  -4.874  1.00156.60           C
ATOM   2363  CB  LEU   304      36.197  33.066  -3.451  1.00156.60           C
ATOM   2364  CG  LEU   304      36.817  33.907  -2.311  1.00156.60           C
ATOM   2365  CD1 LEU   304      38.354  33.860  -2.301  1.00156.60           C
ATOM   2366  CD2 LEU   304      36.265  35.342  -2.331  1.00156.60           C
ATOM   2367  C   LEU   304      37.825  33.723  -5.189  1.00156.60           C
ATOM   2368  O   LEU   304      38.410  34.807  -5.228  1.00156.60           O
ATOM   2369  N   ILE   305      38.445  32.564  -5.484  1.00113.13           N
ATOM   2370  CA  ILE   305      39.870  32.515  -5.643  1.00113.13           C
ATOM   2371  CB  ILE   305      40.371  31.141  -5.977  1.00113.13           C
ATOM   2372  CG2 ILE   305      41.873  31.249  -6.290  1.00113.13           C
ATOM   2373  CG1 ILE   305      40.050  30.161  -4.835  1.00113.13           C
ATOM   2374  CD1 ILE   305      40.698  30.543  -3.506  1.00113.13           C
ATOM   2375  C   ILE   305      40.246  33.409  -6.762  1.00113.13           C
ATOM   2376  O   ILE   305      41.149  34.234  -6.632  1.00113.13           O
ATOM   2377  N   TRP   306      39.548  33.304  -7.902  1.00254.04           N
ATOM   2378  CA  TRP   306      39.946  34.228  -8.908  1.00254.04           C
ATOM   2379  CB  TRP   306      39.505  33.848 -10.330  1.00254.04           C
ATOM   2380  CG  TRP   306      39.952  34.836 -11.379  1.00254.04           C
ATOM   2381  CD2 TRP   306      41.301  34.939 -11.862  1.00254.04           C
ATOM   2382  CD1 TRP   306      39.238  35.799 -12.024  1.00254.04           C
ATOM   2383  NE1 TRP   306      40.051  36.497 -12.884  1.00254.04           N
ATOM   2384  CE2 TRP   306      41.326  35.979 -12.791  1.00254.04           C
ATOM   2385  CE3 TRP   306      42.425  34.231 -11.550  1.00254.04           C
ATOM   2386  CZ2 TRP   306      42.483  36.325 -13.427  1.00254.04           C
ATOM   2387  CZ3 TRP   306      43.589  34.580 -12.195  1.00254.04           C
ATOM   2388  CH2 TRP   306      43.618  35.608 -13.115  1.00254.04           C
ATOM   2389  C   TRP   306      39.292  35.493  -8.494  1.00254.04           C
ATOM   2390  O   TRP   306      38.103  35.517  -8.217  1.00254.04           O
ATOM   2391  N   VAL   307      40.052  36.590  -8.440  1.00187.02           N
ATOM   2392  CA  VAL   307      39.535  37.827  -7.927  1.00187.02           C
ATOM   2393  CB  VAL   307      40.507  38.962  -8.063  1.00187.02           C
ATOM   2394  CG1 VAL   307      40.775  39.207  -9.558  1.00187.02           C
ATOM   2395  CG2 VAL   307      39.931  40.186  -7.330  1.00187.02           C
ATOM   2396  C   VAL   307      38.313  38.177  -8.707  1.00187.02           C
ATOM   2397  O   VAL   307      37.336  38.675  -8.150  1.00187.02           O
ATOM   2398  N   ARG   308      38.324  37.875 -10.016  1.00353.45           N
ATOM   2399  CA  ARG   308      37.175  38.153 -10.820  1.00353.45           C
ATOM   2400  CB  ARG   308      37.441  38.113 -12.335  1.00353.45           C
ATOM   2401  CG  ARG   308      36.187  38.308 -13.192  1.00353.45           C
ATOM   2402  CD  ARG   308      35.614  39.726 -13.154  1.00353.45           C
ATOM   2403  NE  ARG   308      36.509  40.590 -13.974  1.00353.45           N
ATOM   2404  CZ  ARG   308      35.976  41.529 -14.808  1.00353.45           C
ATOM   2405  NH1 ARG   308      34.621  41.664 -14.909  1.00353.45           N
ATOM   2406  NH2 ARG   308      36.798  42.331 -15.546  1.00353.45           N
ATOM   2407  C   ARG   308      36.145  37.117 -10.514  1.00353.45           C
ATOM   2408  O   ARG   308      36.453  36.008 -10.085  1.00353.45           O
ATOM   2409  N   LYS   309      34.874  37.505 -10.692  1.00269.39           N
ATOM   2410  CA  LYS   309      33.721  36.703 -10.414  1.00269.39           C
ATOM   2411  CB  LYS   309      32.417  37.514 -10.572  1.00269.39           C
ATOM   2412  CG  LYS   309      31.104  36.764 -10.299  1.00269.39           C
ATOM   2413  CD  LYS   309      30.713  35.712 -11.339  1.00269.39           C
ATOM   2414  CE  LYS   309      29.323  35.114 -11.122  1.00269.39           C
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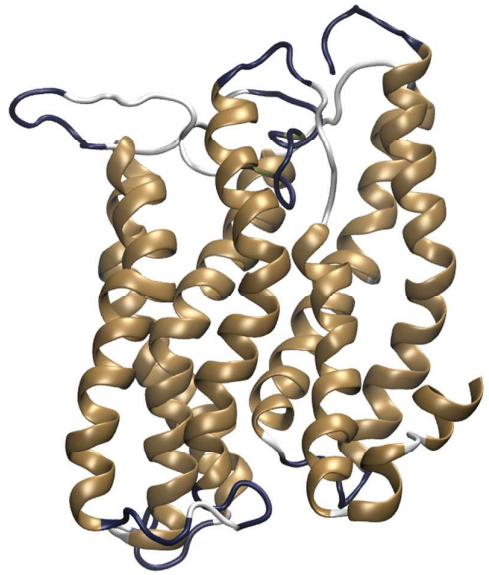
ATOM   2415  NZ  LYS   309      29.263  34.427  -9.813  1.00269.39           N
ATOM   2416  C   LYS   309      33.643  35.520 -11.321  1.00269.39           C
ATOM   2417  O   LYS   309      33.286  34.441 -10.855  1.00269.39           O
ATOM   2418  N   ILE   310      33.977  35.679 -12.623  1.00279.20           N
ATOM   2419  CA  ILE   310      33.762  34.623 -13.580  1.00279.20           C
ATOM   2420  CB  ILE   310      34.299  34.929 -14.951  1.00279.20           C
ATOM   2421  CG2 ILE   310      35.827  35.081 -14.863  1.00279.20           C
ATOM   2422  CG1 ILE   310      33.825  33.867 -15.958  1.00279.20           C
ATOM   2423  CD1 ILE   310      34.068  34.255 -17.416  1.00279.20           C
ATOM   2424  C   ILE   310      34.375  33.348 -13.098  1.00279.20           C
ATOM   2425  O   ILE   310      35.571  33.265 -12.825  1.00279.20           O
ATOM   2426  N   HIS   311      33.523  32.311 -12.975  1.00243.59           N
ATOM   2427  CA  HIS   311      33.953  31.042 -12.474  1.00243.59           C
ATOM   2428  ND1 HIS   311      30.766  29.757 -11.937  1.00243.59           N
ATOM   2429  CG  HIS   311      31.619  30.758 -11.530  1.00243.59           C
ATOM   2430  CB  HIS   311      33.093  30.580 -11.283  1.00243.59           C
ATOM   2431  NE2 HIS   311      29.536  31.600 -11.757  1.00243.59           N
ATOM   2432  CD2 HIS   311      30.850  31.878 -11.426  1.00243.59           C
ATOM   2433  CE1 HIS   311      29.534  30.314 -12.057  1.00243.59           C
ATOM   2434  C   HIS   311      33.784  30.039 -13.562  1.00243.59           C
ATOM   2435  O   HIS   311      32.799  29.304 -13.589  1.00243.59           O
ATOM   2436  N   SER   312      34.765  29.952 -14.479  1.00105.51           N
ATOM   2437  CA  SER   312      34.613  29.005 -15.539  1.00105.51           C
ATOM   2438  CB  SER   312      35.109  29.517 -16.902  1.00105.51           C
ATOM   2439  OG  SER   312      36.511  29.735 -16.862  1.00105.51           O
ATOM   2440  C   SER   312      35.433  27.812 -15.184  1.00105.51           C
ATOM   2441  O   SER   312      36.645  27.893 -14.989  1.00105.51           O
ATOM   2442  N   PRO   313      34.769  26.697 -15.092  1.00142.88           N
ATOM   2443  CA  PRO   313      35.482  25.497 -14.763  1.00142.88           C
ATOM   2444  CD  PRO   313      33.438  26.706 -14.504  1.00142.88           C
ATOM   2445  CB  PRO   313      34.449  24.526 -14.199  1.00142.88           C
ATOM   2446  CG  PRO   313      33.364  25.450 -13.622  1.00142.88           C
ATOM   2447  C   PRO   313      36.174  24.992 -15.982  1.00142.88           C
ATOM   2448  O   PRO   313      35.772  25.406 -17.102  1.00142.88           O
ATOM   2449  OXT PRO   313      37.114  24.167 -15.831  1.00142.88           O
TER    2450       PRO   313
END
```

PDB and structure of OR1G1 built by homology modeling using CXC1 chemokine receptor (PDB ID 2LNL) as template.



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ATOM      1  N   MET     1      39.031 -43.576  19.283  1.00 72.38           N
ATOM      2  CA  MET     1      39.701 -43.979  18.027  1.00 72.38           C
ATOM      3  CB  MET     1      38.725 -43.858  16.843  1.00 72.38           C
ATOM      4  CG  MET     1      38.135 -42.459  16.653  1.00 72.38           C
ATOM      5  SD  MET     1      36.898 -42.339  15.324  1.00 72.38           S
ATOM      6  CE  MET     1      35.656 -43.384  16.144  1.00 72.38           C
ATOM      7  C   MET     1      40.910 -43.144  17.784  1.00 72.38           C
ATOM      8  O   MET     1      41.595 -42.745  18.725  1.00 72.38           O
ATOM      9  N   GLU     2      41.209 -42.857  16.504  1.00191.24           N
ATOM     10  CA  GLU     2      42.387 -42.098  16.216  1.00191.24           C
ATOM     11  CB  GLU     2      42.698 -42.009  14.710  1.00191.24           C
ATOM     12  CG  GLU     2      43.088 -43.338  14.055  1.00191.24           C
ATOM     13  CD  GLU     2      44.601 -43.493  14.148  1.00191.24           C
ATOM     14  OE1 GLU     2      45.234 -42.670  14.862  1.00191.24           O
ATOM     15  OE2 GLU     2      45.145 -44.429  13.503  1.00191.24           O
ATOM     16  C   GLU     2      42.151 -40.704  16.694  1.00191.24           C
ATOM     17  O   GLU     2      41.371 -39.955  16.108  1.00191.24           O
ATOM     18  N   GLY     3      42.817 -40.333  17.803  1.00 68.40           N
ATOM     19  CA  GLY     3      42.711 -38.999  18.308  1.00 68.40           C
ATOM     20  C   GLY     3      41.371 -38.854  18.943  1.00 68.40           C
ATOM     21  O   GLY     3      40.490 -39.695  18.763  1.00 68.40           O
ATOM     22  N   LYS     4      41.191 -37.758  19.706  1.00 78.89           N
ATOM     23  CA  LYS     4      39.931 -37.484  20.327  1.00 78.89           C
ATOM     24  CB  LYS     4      39.940 -36.230  21.220  1.00 78.89           C
ATOM     25  CG  LYS     4      40.856 -36.334  22.441  1.00 78.89           C
ATOM     26  CD  LYS     4      41.014 -35.009  23.191  1.00 78.89           C
ATOM     27  CE  LYS     4      41.407 -33.836  22.292  1.00 78.89           C
ATOM     28  NZ  LYS     4      42.750 -34.066  21.717  1.00 78.89           N
ATOM     29  C   LYS     4      38.959 -37.221  19.226  1.00 78.89           C
ATOM     30  O   LYS     4      37.809 -37.655  19.279  1.00 78.89           O
ATOM     31  N   ASN     5      39.421 -36.516  18.176  1.00230.31           N
ATOM     32  CA  ASN     5      38.563 -36.170  17.081  1.00230.31           C
ATOM     33  CB  ASN     5      38.099 -37.381  16.253  1.00230.31           C
ATOM     34  CG  ASN     5      37.493 -36.869  14.949  1.00230.31           C
ATOM     35  OD1 ASN     5      36.793 -35.858  14.925  1.00230.31           O
ATOM     36  ND2 ASN     5      37.777 -37.581  13.825  1.00230.31           N
ATOM     37  C   ASN     5      37.365 -35.492  17.649  1.00230.31           C
ATOM     38  O   ASN     5      36.227 -35.889  17.398  1.00230.31           O
ATOM     39  N   LEU     6      37.607 -34.445  18.457  1.00298.82           N
ATOM     40  CA  LEU     6      36.535 -33.722  19.068  1.00298.82           C
ATOM     41  CB  LEU     6      37.040 -32.682  20.091  1.00298.82           C
ATOM     42  CG  LEU     6      35.951 -31.837  20.787  1.00298.82           C
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ATOM     43  CD1 LEU     6      35.350 -30.779  19.849  1.00298.82           C
ATOM     44  CD2 LEU     6      34.882 -32.731  21.433  1.00298.82           C
ATOM     45  C   LEU     6      35.783 -33.017  17.989  1.00298.82           C
ATOM     46  O   LEU     6      36.362 -32.320  17.159  1.00298.82           O
ATOM     47  N   THR     7      34.449 -33.208  17.976  1.00280.96           N
ATOM     48  CA  THR     7      33.605 -32.538  17.033  1.00280.96           C
ATOM     49  CB  THR     7      33.142 -33.406  15.899  1.00280.96           C
ATOM     50  OG1 THR     7      32.482 -32.617  14.920  1.00280.96           O
ATOM     51  CG2 THR     7      32.194 -34.486  16.449  1.00280.96           C
ATOM     52  C   THR     7      32.395 -32.108  17.795  1.00280.96           C
ATOM     53  O   THR     7      32.104 -32.639  18.865  1.00280.96           O
ATOM     54  N   SER     8      31.652 -31.121  17.263  1.00151.14           N
ATOM     55  CA  SER     8      30.506 -30.642  17.975  1.00151.14           C
ATOM     56  CB  SER     8      30.015 -29.259  17.503  1.00151.14           C
ATOM     57  OG  SER     8      28.908 -28.828  18.282  1.00151.14           O
ATOM     58  C   SER     8      29.406 -31.634  17.778  1.00151.14           C
ATOM     59  O   SER     8      29.549 -32.609  17.042  1.00151.14           O
ATOM     60  N   ILE     9      28.274 -31.405  18.469  1.00122.07           N
ATOM     61  CA  ILE     9      27.145 -32.284  18.410  1.00122.07           C
ATOM     62  CB  ILE     9      26.000 -31.816  19.258  1.00122.07           C
ATOM     63  CG2 ILE     9      26.470 -31.769  20.720  1.00122.07           C
ATOM     64  CG1 ILE     9      25.475 -30.468  18.737  1.00122.07           C
ATOM     65  CD1 ILE     9      24.157 -30.034  19.373  1.00122.07           C
ATOM     66  C   ILE     9      26.656 -32.318  17.001  1.00122.07           C
ATOM     67  O   ILE     9      26.537 -31.284  16.345  1.00122.07           O
ATOM     68  N   SER    10      26.404 -33.538  16.487  1.00115.36           N
ATOM     69  CA  SER    10      25.891 -33.696  15.160  1.00115.36           C
ATOM     70  CB  SER    10      26.420 -34.939  14.423  1.00115.36           C
ATOM     71  OG  SER    10      25.980 -36.121  15.073  1.00115.36           O
ATOM     72  C   SER    10      24.409 -33.840  15.255  1.00115.36           C
ATOM     73  O   SER    10      23.832 -33.839  16.341  1.00115.36           O
ATOM     74  N   GLU    11      23.760 -33.963  14.083  1.00190.95           N
ATOM     75  CA  GLU    11      22.341 -34.130  14.014  1.00190.95           C
ATOM     76  CB  GLU    11      21.798 -34.158  12.575  1.00190.95           C
ATOM     77  CG  GLU    11      21.941 -32.832  11.831  1.00190.95           C
ATOM     78  CD  GLU    11      21.680 -33.087  10.351  1.00190.95           C
ATOM     79  OE1 GLU    11      21.377 -34.256   9.987  1.00190.95           O
ATOM     80  OE2 GLU    11      21.788 -32.111   9.562  1.00190.95           O
ATOM     81  C   GLU    11      22.064 -35.478  14.574  1.00190.95           C
ATOM     82  O   GLU    11      22.948 -36.332  14.624  1.00190.95           O
ATOM     83  N   CYS    12      20.828 -35.712  15.042  1.00 97.78           N
ATOM     84  CA  CYS    12      20.580 -37.029  15.529  1.00 97.78           C
ATOM     85  CB  CYS    12      19.182 -37.227  16.137  1.00 97.78           C
ATOM     86  SG  CYS    12      17.853 -37.038  14.915  1.00 97.78           S
ATOM     87  C   CYS    12      20.725 -37.914  14.337  1.00 97.78           C
ATOM     88  O   CYS    12      20.569 -37.467  13.201  1.00 97.78           O
ATOM     89  N   PHE    13      21.049 -39.196  14.569  1.00194.30           N
ATOM     90  CA  PHE    13      21.328 -40.097  13.492  1.00194.30           C
ATOM     91  CB  PHE    13      21.587 -41.540  13.960  1.00194.30           C
ATOM     92  CG  PHE    13      20.305 -42.037  14.535  1.00194.30           C
ATOM     93  CD1 PHE    13      20.002 -41.834  15.862  1.00194.30           C
ATOM     94  CD2 PHE    13      19.399 -42.699  13.738  1.00194.30           C
ATOM     95  CE1 PHE    13      18.813 -42.288  16.383  1.00194.30           C
ATOM     96  CE2 PHE    13      18.210 -43.154  14.254  1.00194.30           C
ATOM     97  CZ  PHE    13      17.914 -42.949  15.579  1.00194.30           C
ATOM     98  C   PHE    13      20.160 -40.106  12.571  1.00194.30           C
ATOM     99  O   PHE    13      19.009 -39.976  12.989  1.00194.30           O
ATOM    100  N   LEU    14      20.440 -40.245  11.265  1.00300.81           N
ATOM    101  CA  LEU    14      19.371 -40.237  10.322  1.00300.81           C
ATOM    102  CB  LEU    14      19.834 -40.413   8.867  1.00300.81           C
ATOM    103  CG  LEU    14      20.871 -39.382   8.390  1.00300.81           C
ATOM    104  CD1 LEU    14      21.225 -39.613   6.916  1.00300.81           C
ATOM    105  CD2 LEU    14      20.440 -37.939   8.680  1.00300.81           C
ATOM    106  C   LEU    14      18.532 -41.421  10.634  1.00300.81           C
ATOM    107  O   LEU    14      19.025 -42.544  10.748  1.00300.81           O
ATOM    108  N   LEU    15      17.221 -41.199  10.787  1.00 83.37           N
ATOM    109  CA  LEU    15      16.397 -42.327  11.056  1.00 83.37           C
ATOM    110  CB  LEU    15      14.913 -41.969  11.215  1.00 83.37           C
ATOM    111  CG  LEU    15      14.621 -41.079  12.434  1.00 83.37           C
ATOM    112  CD1 LEU    15      13.117 -40.779  12.548  1.00 83.37           C
ATOM    113  CD2 LEU    15      15.212 -41.685  13.717  1.00 83.37           C
ATOM    114  C   LEU    15      16.506 -43.185   9.851  1.00 83.37           C
ATOM    115  O   LEU    15      16.698 -44.396   9.948  1.00 83.37           O
ATOM    116  N   GLY    16      16.437 -42.550   8.667  1.00 87.39           N
ATOM    117  CA  GLY    16      16.445 -43.319   7.467  1.00 87.39           C
ATOM    118  C   GLY    16      15.158 -44.047   7.529  1.00 87.39           C
ATOM    119  O   GLY    16      14.152 -43.502   7.983  1.00 87.39           O
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ATOM    120  N   PHE    17      15.144 -45.305   7.075  1.00184.80           N
ATOM    121  CA  PHE    17      13.925 -46.018   7.252  1.00184.80           C
ATOM    122  CB  PHE    17      13.892 -47.405   6.589  1.00184.80           C
ATOM    123  CG  PHE    17      12.469 -47.841   6.653  1.00184.80           C
ATOM    124  CD1 PHE    17      11.583 -47.389   5.703  1.00184.80           C
ATOM    125  CD2 PHE    17      12.013 -48.682   7.643  1.00184.80           C
ATOM    126  CE1 PHE    17      10.261 -47.763   5.734  1.00184.80           C
ATOM    127  CE2 PHE    17      10.690 -49.061   7.680  1.00184.80           C
ATOM    128  CZ  PHE    17       9.814 -48.602   6.725  1.00184.80           C
ATOM    129  C   PHE    17      13.884 -46.218   8.723  1.00184.80           C
ATOM    130  O   PHE    17      14.919 -46.110   9.376  1.00184.80           O
ATOM    131  N   SER    18      12.703 -46.499   9.299  1.00120.49           N
ATOM    132  CA  SER    18      12.652 -46.626  10.726  1.00120.49           C
ATOM    133  CB  SER    18      11.259 -46.955  11.292  1.00120.49           C
ATOM    134  OG  SER    18      10.385 -45.851  11.112  1.00120.49           O
ATOM    135  C   SER    18      13.583 -47.716  11.145  1.00120.49           C
ATOM    136  O   SER    18      14.185 -48.411  10.329  1.00120.49           O
ATOM    137  N   GLU    19      13.732 -47.869  12.468  1.00118.71           N
ATOM    138  CA  GLU    19      14.633 -48.833  13.008  1.00118.71           C
ATOM    139  CB  GLU    19      14.618 -48.866  14.545  1.00118.71           C
ATOM    140  CG  GLU    19      15.149 -47.575  15.173  1.00118.71           C
ATOM    141  CD  GLU    19      16.634 -47.487  14.855  1.00118.71           C
ATOM    142  OE1 GLU    19      17.177 -48.482  14.304  1.00118.71           O
ATOM    143  OE2 GLU    19      17.244 -46.427  15.156  1.00118.71           O
ATOM    144  C   GLU    19      14.190 -50.159  12.502  1.00118.71           C
ATOM    145  O   GLU    19      15.020 -51.043  12.293  1.00118.71           O
ATOM    146  N   GLN    20      12.866 -50.319  12.290  1.00250.50           N
ATOM    147  CA  GLN    20      12.320 -51.559  11.815  1.00250.50           C
ATOM    148  CB  GLN    20      10.846 -51.522  11.375  1.00250.50           C
ATOM    149  CG  GLN    20       9.824 -51.448  12.510  1.00250.50           C
ATOM    150  CD  GLN    20       8.454 -51.630  11.871  1.00250.50           C
ATOM    151  OE1 GLN    20       8.339 -51.741  10.651  1.00250.50           O
ATOM    152  NE2 GLN    20       7.383 -51.667  12.707  1.00250.50           N
ATOM    153  C   GLN    20      13.086 -52.013  10.630  1.00250.50           C
ATOM    154  O   GLN    20      13.680 -51.202   9.918  1.00250.50           O
ATOM    155  N   LEU    21      13.034 -53.349  10.429  1.00272.35           N
ATOM    156  CA  LEU    21      13.740 -54.122   9.452  1.00272.35           C
ATOM    157  CB  LEU    21      12.913 -54.428   8.193  1.00272.35           C
ATOM    158  CG  LEU    21      11.717 -55.357   8.472  1.00272.35           C
ATOM    159  CD1 LEU    21      12.188 -56.756   8.902  1.00272.35           C
ATOM    160  CD2 LEU    21      10.741 -54.725   9.476  1.00272.35           C
ATOM    161  C   LEU    21      14.988 -53.414   9.070  1.00272.35           C
ATOM    162  O   LEU    21      15.004 -52.542   8.202  1.00272.35           O
ATOM    163  N   GLU    22      16.079 -53.800   9.746  1.00157.61           N
ATOM    164  CA  GLU    22      17.359 -53.227   9.501  1.00157.61           C
ATOM    165  CB  GLU    22      18.446 -53.830  10.410  1.00157.61           C
ATOM    166  CG  GLU    22      19.867 -53.376  10.077  1.00157.61           C
ATOM    167  CD  GLU    22      20.517 -54.466   9.236  1.00157.61           C
ATOM    168  OE1 GLU    22      20.299 -55.664   9.558  1.00157.61           O
ATOM    169  OE2 GLU    22      21.257 -54.119   8.276  1.00157.61           O
ATOM    170  C   GLU    22      17.650 -53.564   8.089  1.00157.61           C
ATOM    171  O   GLU    22      18.245 -52.774   7.367  1.00157.61           O
ATOM    172  N   GLU    23      17.171 -54.742   7.660  1.00114.28           N
ATOM    173  CA  GLU    23      17.363 -55.238   6.333  1.00114.28           C
ATOM    174  CB  GLU    23      16.648 -56.580   6.102  1.00114.28           C
ATOM    175  CG  GLU    23      16.994 -57.238   4.766  1.00114.28           C
ATOM    176  CD  GLU    23      18.387 -57.836   4.907  1.00114.28           C
ATOM    177  OE1 GLU    23      19.206 -57.265   5.676  1.00114.28           O
ATOM    178  OE2 GLU    23      18.650 -58.873   4.242  1.00114.28           O
ATOM    179  C   GLU    23      16.764 -54.247   5.388  1.00114.28           C
ATOM    180  O   GLU    23      17.269 -54.051   4.285  1.00114.28           O
ATOM    181  N   GLN    24      15.677 -53.574   5.805  1.00 71.67           N
ATOM    182  CA  GLN    24      15.013 -52.656   4.926  1.00 71.67           C
ATOM    183  CB  GLN    24      13.778 -51.973   5.536  1.00 71.67           C
ATOM    184  CG  GLN    24      12.590 -52.922   5.680  1.00 71.67           C
ATOM    185  CD  GLN    24      11.403 -52.116   6.183  1.00 71.67           C
ATOM    186  OE1 GLN    24      10.932 -52.318   7.301  1.00 71.67           O
ATOM    187  NE2 GLN    24      10.901 -51.177   5.338  1.00 71.67           N
ATOM    188  C   GLN    24      15.957 -51.573   4.506  1.00 71.67           C
ATOM    189  O   GLN    24      15.871 -51.091   3.379  1.00 71.67           O
ATOM    190  N   LYS    25      16.872 -51.134   5.388  1.00188.15           N
ATOM    191  CA  LYS    25      17.749 -50.069   4.990  1.00188.15           C
ATOM    192  CB  LYS    25      18.700 -49.630   6.121  1.00188.15           C
ATOM    193  CG  LYS    25      19.440 -48.317   5.860  1.00188.15           C
ATOM    194  CD  LYS    25      20.333 -48.354   4.624  1.00188.15           C
ATOM    195  CE  LYS    25      21.251 -49.574   4.600  1.00188.15           C
ATOM    196  NZ  LYS    25      21.822 -49.735   3.248  1.00188.15           N
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ATOM    197  C   LYS    25      18.536 -50.534   3.804  1.00188.15           C
ATOM    198  O   LYS    25      18.664 -49.804   2.821  1.00188.15           O
ATOM    199  N   PRO    26      19.062 -51.724   3.838  1.00 93.06           N
ATOM    200  CA  PRO    26      19.742 -52.203   2.678  1.00 93.06           C
ATOM    201  CD  PRO    26      19.686 -52.260   5.029  1.00 93.06           C
ATOM    202  CB  PRO    26      20.527 -53.445   3.110  1.00 93.06           C
ATOM    203  CG  PRO    26      20.158 -53.648   4.590  1.00 93.06           C
ATOM    204  C   PRO    26      18.774 -52.438   1.574  1.00 93.06           C
ATOM    205  O   PRO    26      19.203 -52.559   0.432  1.00 93.06           O
ATOM    206  N   LEU    27      17.468 -52.523   1.879  1.00 80.21           N
ATOM    207  CA  LEU    27      16.523 -52.754   0.829  1.00 80.21           C
ATOM    208  CB  LEU    27      15.072 -52.854   1.342  1.00 80.21           C
ATOM    209  CG  LEU    27      14.028 -53.123   0.240  1.00 80.21           C
ATOM    210  CD1 LEU    27      14.279 -54.480  -0.438  1.00 80.21           C
ATOM    211  CD2 LEU    27      12.593 -52.997   0.780  1.00 80.21           C
ATOM    212  C   LEU    27      16.613 -51.580  -0.095  1.00 80.21           C
ATOM    213  O   LEU    27      16.636 -51.734  -1.315  1.00 80.21           O
ATOM    214  N   PHE    28      16.706 -50.363   0.471  1.00103.21           N
ATOM    215  CA  PHE    28      16.773 -49.179  -0.340  1.00103.21           C
ATOM    216  CB  PHE    28      16.975 -47.894   0.485  1.00103.21           C
ATOM    217  CG  PHE    28      15.898 -47.737   1.504  1.00103.21           C
ATOM    218  CD1 PHE    28      15.960 -48.443   2.682  1.00103.21           C
ATOM    219  CD2 PHE    28      14.845 -46.877   1.308  1.00103.21           C
ATOM    220  CE1 PHE    28      14.988 -48.314   3.646  1.00103.21           C
ATOM    221  CE2 PHE    28      13.872 -46.743   2.270  1.00103.21           C
ATOM    222  CZ  PHE    28      13.935 -47.459   3.440  1.00103.21           C
ATOM    223  C   PHE    28      18.023 -49.276  -1.148  1.00103.21           C
ATOM    224  O   PHE    28      18.026 -49.056  -2.360  1.00103.21           O
ATOM    225  N   GLY    29      19.125 -49.637  -0.468  1.00 27.27           N
ATOM    226  CA  GLY    29      20.405 -49.662  -1.103  1.00 27.27           C
ATOM    227  C   GLY    29      20.360 -50.632  -2.229  1.00 27.27           C
ATOM    228  O   GLY    29      20.883 -50.363  -3.309  1.00 27.27           O
ATOM    229  N   SER    30      19.715 -51.788  -2.013  1.00 31.73           N
ATOM    230  CA  SER    30      19.698 -52.779  -3.041  1.00 31.73           C
ATOM    231  CB  SER    30      18.933 -54.056  -2.656  1.00 31.73           C
ATOM    232  OG  SER    30      17.542 -53.792  -2.571  1.00 31.73           O
ATOM    233  C   SER    30      19.008 -52.180  -4.217  1.00 31.73           C
ATOM    234  O   SER    30      19.381 -52.430  -5.360  1.00 31.73           O
ATOM    235  N   PHE    31      17.979 -51.359  -3.958  1.00 50.07           N
ATOM    236  CA  PHE    31      17.240 -50.749  -5.018  1.00 50.07           C
ATOM    237  CB  PHE    31      16.042 -49.946  -4.481  1.00 50.07           C
ATOM    238  CG  PHE    31      15.117 -49.665  -5.612  1.00 50.07           C
ATOM    239  CD1 PHE    31      14.121 -50.563  -5.920  1.00 50.07           C
ATOM    240  CD2 PHE    31      15.244 -48.522  -6.365  1.00 50.07           C
ATOM    241  CE1 PHE    31      13.259 -50.323  -6.962  1.00 50.07           C
ATOM    242  CE2 PHE    31      14.383 -48.276  -7.408  1.00 50.07           C
ATOM    243  CZ  PHE    31      13.388 -49.176  -7.708  1.00 50.07           C
ATOM    244  C   PHE    31      18.168 -49.827  -5.744  1.00 50.07           C
ATOM    245  O   PHE    31      18.208 -49.814  -6.973  1.00 50.07           O
ATOM    246  N   LEU    32      18.974 -49.054  -4.990  1.00 96.86           N
ATOM    247  CA  LEU    32      19.831 -48.079  -5.606  1.00 96.86           C
ATOM    248  CB  LEU    32      20.630 -47.285  -4.545  1.00 96.86           C
ATOM    249  CG  LEU    32      21.461 -46.073  -5.029  1.00 96.86           C
ATOM    250  CD1 LEU    32      22.166 -45.404  -3.840  1.00 96.86           C
ATOM    251  CD2 LEU    32      22.465 -46.429  -6.132  1.00 96.86           C
ATOM    252  C   LEU    32      20.781 -48.801  -6.516  1.00 96.86           C
ATOM    253  O   LEU    32      20.964 -48.413  -7.671  1.00 96.86           O
ATOM    254  N   PHE    33      21.407 -49.885  -6.026  1.00 45.29           N
ATOM    255  CA  PHE    33      22.330 -50.623  -6.838  1.00 45.29           C
ATOM    256  CB  PHE    33      23.135 -51.681  -6.059  1.00 45.29           C
ATOM    257  CG  PHE    33      24.224 -50.964  -5.327  1.00 45.29           C
ATOM    258  CD1 PHE    33      23.997 -50.364  -4.109  1.00 45.29           C
ATOM    259  CD2 PHE    33      25.485 -50.890  -5.874  1.00 45.29           C
ATOM    260  CE1 PHE    33      25.010 -49.706  -3.450  1.00 45.29           C
ATOM    261  CE2 PHE    33      26.503 -50.234  -5.222  1.00 45.29           C
ATOM    262  CZ  PHE    33      26.266 -49.641  -4.006  1.00 45.29           C
ATOM    263  C   PHE    33      21.589 -51.273  -7.961  1.00 45.29           C
ATOM    264  O   PHE    33      22.086 -51.335  -9.084  1.00 45.29           O
ATOM    265  N   MET    34      20.369 -51.771  -7.693  1.00 59.06           N
ATOM    266  CA  MET    34      19.624 -52.429  -8.726  1.00 59.06           C
ATOM    267  CB  MET    34      18.248 -52.923  -8.251  1.00 59.06           C
ATOM    268  CG  MET    34      17.472 -53.682  -9.327  1.00 59.06           C
ATOM    269  SD  MET    34      15.887 -54.376  -8.770  1.00 59.06           S
ATOM    270  CE  MET    34      15.475 -55.145 -10.362  1.00 59.06           C
ATOM    271  C   MET    34      19.404 -51.427  -9.811  1.00 59.06           C
ATOM    272  O   MET    34      19.526 -51.737 -10.994  1.00 59.06           O
ATOM    273  N   TYR    35      19.077 -50.184  -9.416  1.00 73.60           N
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ATOM    274  CA  TYR    35      18.879 -49.105 -10.337  1.00 73.60           C
ATOM    275  CB  TYR    35      18.370 -47.804  -9.692  1.00 73.60           C
ATOM    276  CG  TYR    35      18.421 -46.819 -10.804  1.00 73.60           C
ATOM    277  CD1 TYR    35      17.537 -46.913 -11.853  1.00 73.60           C
ATOM    278  CD2 TYR    35      19.351 -45.806 -10.797  1.00 73.60           C
ATOM    279  CE1 TYR    35      17.586 -46.013 -12.890  1.00 73.60           C
ATOM    280  CE2 TYR    35      19.405 -44.902 -11.831  1.00 73.60           C
ATOM    281  CZ  TYR    35      18.524 -45.009 -12.880  1.00 73.60           C
ATOM    282  OH  TYR    35      18.579 -44.087 -13.946  1.00 73.60           O
ATOM    283  C   TYR    35      20.182 -48.793 -10.999  1.00 73.60           C
ATOM    284  O   TYR    35      20.219 -48.433 -12.174  1.00 73.60           O
ATOM    285  N   LEU    36      21.292 -48.933 -10.254  1.00160.44           N
ATOM    286  CA  LEU    36      22.590 -48.563 -10.742  1.00160.44           C
ATOM    287  CB  LEU    36      23.720 -48.865  -9.746  1.00160.44           C
ATOM    288  CG  LEU    36      23.669 -48.006  -8.476  1.00160.44           C
ATOM    289  CD1 LEU    36      24.822 -48.357  -7.522  1.00160.44           C
ATOM    290  CD2 LEU    36      23.618 -46.513  -8.841  1.00160.44           C
ATOM    291  C   LEU    36      22.917 -49.326 -11.989  1.00160.44           C
ATOM    292  O   LEU    36      23.598 -48.804 -12.870  1.00160.44           O
ATOM    293  N   VAL    37      22.475 -50.590 -12.107  1.00 93.90           N
ATOM    294  CA  VAL    37      22.854 -51.330 -13.277  1.00 93.90           C
ATOM    295  CB  VAL    37      22.307 -52.735 -13.287  1.00 93.90           C
ATOM    296  CG1 VAL    37      20.769 -52.693 -13.269  1.00 93.90           C
ATOM    297  CG2 VAL    37      22.892 -53.472 -14.505  1.00 93.90           C
ATOM    298  C   VAL    37      22.375 -50.609 -14.506  1.00 93.90           C
ATOM    299  O   VAL    37      23.144 -50.392 -15.441  1.00 93.90           O
ATOM    300  N   THR    38      21.098 -50.188 -14.529  1.00100.81           N
ATOM    301  CA  THR    38      20.568 -49.477 -15.657  1.00100.81           C
ATOM    302  CB  THR    38      19.075 -49.299 -15.604  1.00100.81           C
ATOM    303  OG1 THR    38      18.602 -48.780 -16.837  1.00100.81           O
ATOM    304  CG2 THR    38      18.715 -48.341 -14.461  1.00100.81           C
ATOM    305  C   THR    38      21.199 -48.121 -15.721  1.00100.81           C
ATOM    306  O   THR    38      21.468 -47.604 -16.805  1.00100.81           O
ATOM    307  N   VAL    39      21.490 -47.524 -14.548  1.00 99.16           N
ATOM    308  CA  VAL    39      21.969 -46.172 -14.524  1.00 99.16           C
ATOM    309  CB  VAL    39      22.255 -45.619 -13.153  1.00 99.16           C
ATOM    310  CG1 VAL    39      23.637 -46.086 -12.675  1.00 99.16           C
ATOM    311  CG2 VAL    39      22.117 -44.090 -13.222  1.00 99.16           C
ATOM    312  C   VAL    39      23.229 -46.107 -15.325  1.00 99.16           C
ATOM    313  O   VAL    39      23.495 -45.109 -15.992  1.00 99.16           O
ATOM    314  N   ALA    40      24.033 -47.184 -15.301  1.00 27.33           N
ATOM    315  CA  ALA    40      25.271 -47.179 -16.024  1.00 27.33           C
ATOM    316  CB  ALA    40      26.023 -48.518 -15.925  1.00 27.33           C
ATOM    317  C   ALA    40      24.947 -46.943 -17.465  1.00 27.33           C
ATOM    318  O   ALA    40      25.665 -46.230 -18.160  1.00 27.33           O
ATOM    319  N   GLY    41      23.839 -47.538 -17.940  1.00 25.39           N
ATOM    320  CA  GLY    41      23.407 -47.387 -19.299  1.00 25.39           C
ATOM    321  C   GLY    41      23.104 -45.942 -19.525  1.00 25.39           C
ATOM    322  O   GLY    41      23.272 -45.418 -20.625  1.00 25.39           O
ATOM    323  N   ASN    42      22.636 -45.268 -18.462  1.00 95.15           N
ATOM    324  CA  ASN    42      22.211 -43.905 -18.537  1.00 95.15           C
ATOM    325  CB  ASN    42      21.690 -43.371 -17.198  1.00 95.15           C
ATOM    326  CG  ASN    42      20.862 -42.146 -17.529  1.00 95.15           C
ATOM    327  OD1 ASN    42      21.389 -41.122 -17.957  1.00 95.15           O
ATOM    328  ND2 ASN    42      19.520 -42.257 -17.338  1.00 95.15           N
ATOM    329  C   ASN    42      23.340 -43.039 -19.000  1.00 95.15           C
ATOM    330  O   ASN    42      23.118 -42.076 -19.726  1.00 95.15           O
ATOM    331  N   LEU    43      24.590 -43.311 -18.593  1.00106.16           N
ATOM    332  CA  LEU    43      25.617 -42.444 -19.089  1.00106.16           C
ATOM    333  CB  LEU    43      27.007 -42.725 -18.475  1.00106.16           C
ATOM    334  CG  LEU    43      27.681 -44.052 -18.890  1.00106.16           C
ATOM    335  CD1 LEU    43      28.265 -43.994 -20.312  1.00106.16           C
ATOM    336  CD2 LEU    43      28.715 -44.497 -17.844  1.00106.16           C
ATOM    337  C   LEU    43      25.675 -42.619 -20.575  1.00106.16           C
ATOM    338  O   LEU    43      25.828 -41.656 -21.323  1.00106.16           O
ATOM    339  N   LEU    44      25.547 -43.872 -21.047  1.00 82.10           N
ATOM    340  CA  LEU    44      25.628 -44.134 -22.454  1.00 82.10           C
ATOM    341  CB  LEU    44      25.533 -45.632 -22.778  1.00 82.10           C
ATOM    342  CG  LEU    44      26.699 -46.459 -22.211  1.00 82.10           C
ATOM    343  CD1 LEU    44      26.699 -46.468 -20.676  1.00 82.10           C
ATOM    344  CD2 LEU    44      26.706 -47.869 -22.809  1.00 82.10           C
ATOM    345  C   LEU    44      24.479 -43.478 -23.147  1.00 82.10           C
ATOM    346  O   LEU    44      24.654 -42.796 -24.153  1.00 82.10           O
ATOM    347  N   ILE    45      23.267 -43.667 -22.597  1.00 93.74           N
ATOM    348  CA  ILE    45      22.062 -43.168 -23.188  1.00 93.74           C
ATOM    349  CB  ILE    45      20.833 -43.633 -22.462  1.00 93.74           C
ATOM    350  CG2 ILE    45      20.768 -45.166 -22.564  1.00 93.74           C
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ATOM    351  CG1 ILE    45      20.837 -43.114 -21.017  1.00 93.74           C
ATOM    352  CD1 ILE    45      19.503 -43.284 -20.296  1.00 93.74           C
ATOM    353  C   ILE    45      22.063 -41.675 -23.166  1.00 93.74           C
ATOM    354  O   ILE    45      21.663 -41.028 -24.132  1.00 93.74           O
ATOM    355  N   ILE    46      22.506 -41.086 -22.047  1.00152.17           N
ATOM    356  CA  ILE    46      22.439 -39.672 -21.877  1.00152.17           C
ATOM    357  CB  ILE    46      22.810 -39.250 -20.481  1.00152.17           C
ATOM    358  CG2 ILE    46      24.295 -39.574 -20.256  1.00152.17           C
ATOM    359  CG1 ILE    46      22.410 -37.790 -20.191  1.00152.17           C
ATOM    360  CD1 ILE    46      23.157 -36.734 -21.006  1.00152.17           C
ATOM    361  C   ILE    46      23.307 -38.986 -22.890  1.00152.17           C
ATOM    362  O   ILE    46      22.859 -38.044 -23.540  1.00152.17           O
ATOM    363  N   LEU    47      24.568 -39.423 -23.062  1.00 90.41           N
ATOM    364  CA  LEU    47      25.429 -38.760 -24.003  1.00 90.41           C
ATOM    365  CB  LEU    47      26.918 -39.137 -23.876  1.00 90.41           C
ATOM    366  CG  LEU    47      27.601 -38.562 -22.617  1.00 90.41           C
ATOM    367  CD1 LEU    47      27.011 -39.167 -21.333  1.00 90.41           C
ATOM    368  CD2 LEU    47      29.134 -38.676 -22.702  1.00 90.41           C
ATOM    369  C   LEU    47      25.010 -39.012 -25.419  1.00 90.41           C
ATOM    370  O   LEU    47      25.015 -38.101 -26.245  1.00 90.41           O
ATOM    371  N   VAL    48      24.624 -40.260 -25.740  1.00 39.19           N
ATOM    372  CA  VAL    48      24.358 -40.612 -27.106  1.00 39.19           C
ATOM    373  CB  VAL    48      24.025 -42.064 -27.288  1.00 39.19           C
ATOM    374  CG1 VAL    48      23.627 -42.295 -28.758  1.00 39.19           C
ATOM    375  CG2 VAL    48      25.229 -42.903 -26.830  1.00 39.19           C
ATOM    376  C   VAL    48      23.211 -39.834 -27.662  1.00 39.19           C
ATOM    377  O   VAL    48      23.307 -39.276 -28.755  1.00 39.19           O
ATOM    378  N   ILE    49      22.094 -39.747 -26.923  1.00 71.89           N
ATOM    379  CA  ILE    49      20.955 -39.131 -27.520  1.00 71.89           C
ATOM    380  CB  ILE    49      19.717 -39.261 -26.685  1.00 71.89           C
ATOM    381  CG2 ILE    49      18.557 -38.675 -27.496  1.00 71.89           C
ATOM    382  CG1 ILE    49      19.453 -40.738 -26.349  1.00 71.89           C
ATOM    383  CD1 ILE    49      18.303 -40.932 -25.362  1.00 71.89           C
ATOM    384  C   ILE    49      21.263 -37.694 -27.809  1.00 71.89           C
ATOM    385  O   ILE    49      21.040 -37.241 -28.924  1.00 71.89           O
ATOM    386  N   ILE    50      21.865 -36.952 -26.861  1.00172.05           N
ATOM    387  CA  ILE    50      22.133 -35.555 -27.087  1.00172.05           C
ATOM    388  CB  ILE    50      22.807 -34.892 -25.912  1.00172.05           C
ATOM    389  CG2 ILE    50      24.217 -35.491 -25.754  1.00172.05           C
ATOM    390  CG1 ILE    50      22.773 -33.354 -26.030  1.00172.05           C
ATOM    391  CD1 ILE    50      23.605 -32.776 -27.174  1.00172.05           C
ATOM    392  C   ILE    50      23.013 -35.437 -28.294  1.00172.05           C
ATOM    393  O   ILE    50      22.839 -34.540 -29.120  1.00172.05           O
ATOM    394  N   THR    51      23.986 -36.351 -28.430  1.00 32.30           N
ATOM    395  CA  THR    51      24.885 -36.316 -29.543  1.00 32.30           C
ATOM    396  CB  THR    51      25.950 -37.372 -29.466  1.00 32.30           C
ATOM    397  OG1 THR    51      26.731 -37.196 -28.292  1.00 32.30           O
ATOM    398  CG2 THR    51      26.834 -37.274 -30.721  1.00 32.30           C
ATOM    399  C   THR    51      24.096 -36.560 -30.786  1.00 32.30           C
ATOM    400  O   THR    51      24.365 -35.952 -31.820  1.00 32.30           O
ATOM    401  N   ASP    52      23.087 -37.450 -30.717  1.00 53.77           N
ATOM    402  CA  ASP    52      22.360 -37.819 -31.899  1.00 53.77           C
ATOM    403  CB  ASP    52      21.304 -38.912 -31.660  1.00 53.77           C
ATOM    404  CG  ASP    52      22.022 -40.229 -31.399  1.00 53.77           C
ATOM    405  OD1 ASP    52      23.081 -40.464 -32.039  1.00 53.77           O
ATOM    406  OD2 ASP    52      21.509 -41.021 -30.564  1.00 53.77           O
ATOM    407  C   ASP    52      21.658 -36.629 -32.479  1.00 53.77           C
ATOM    408  O   ASP    52      21.196 -35.741 -31.770  1.00 53.77           O
ATOM    409  N   THR    53      21.625 -36.558 -33.824  1.00109.42           N
ATOM    410  CA  THR    53      20.931 -35.517 -34.529  1.00109.42           C
ATOM    411  CB  THR    53      21.270 -35.474 -35.993  1.00109.42           C
ATOM    412  OG1 THR    53      20.707 -34.317 -36.593  1.00109.42           O
ATOM    413  CG2 THR    53      20.731 -36.743 -36.672  1.00109.42           C
ATOM    414  C   THR    53      19.451 -35.742 -34.406  1.00109.42           C
ATOM    415  O   THR    53      18.673 -34.799 -34.272  1.00109.42           O
ATOM    416  N   GLN    54      19.048 -37.026 -34.418  1.00128.50           N
ATOM    417  CA  GLN    54      17.698 -37.534 -34.396  1.00128.50           C
ATOM    418  CB  GLN    54      17.653 -39.069 -34.415  1.00128.50           C
ATOM    419  CG  GLN    54      16.244 -39.658 -34.386  1.00128.50           C
ATOM    420  CD  GLN    54      16.402 -41.170 -34.334  1.00128.50           C
ATOM    421  OE1 GLN    54      15.767 -41.849 -33.529  1.00128.50           O
ATOM    422  NE2 GLN    54      17.280 -41.713 -35.219  1.00128.50           N
ATOM    423  C   GLN    54      17.039 -37.126 -33.118  1.00128.50           C
ATOM    424  O   GLN    54      15.818 -37.165 -32.988  1.00128.50           O
ATOM    425  N   LEU    55      17.883 -36.764 -32.144  1.00215.84           N
ATOM    426  CA  LEU    55      17.689 -36.462 -30.753  1.00215.84           C
ATOM    427  CB  LEU    55      19.011 -35.956 -30.169  1.00215.84           C
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ATOM    428  CG  LEU    55      19.064 -35.134 -28.852  1.00215.84           C
ATOM    429  CD1 LEU    55      18.687 -33.659 -29.080  1.00215.84           C
ATOM    430  CD2 LEU    55      18.275 -35.765 -27.703  1.00215.84           C
ATOM    431  C   LEU    55      16.723 -35.400 -30.384  1.00215.84           C
ATOM    432  O   LEU    55      16.096 -35.556 -29.342  1.00215.84           O
ATOM    433  N   HIS    56      16.602 -34.280 -31.117  1.00161.37           N
ATOM    434  CA  HIS    56      15.816 -33.254 -30.490  1.00161.37           C
ATOM    435  ND1 HIS    56      15.844 -31.150 -33.256  1.00161.37           N
ATOM    436  CG  HIS    56      16.674 -31.568 -32.243  1.00161.37           C
ATOM    437  CB  HIS    56      16.238 -31.808 -30.829  1.00161.37           C
ATOM    438  NE2 HIS    56      17.881 -31.319 -34.134  1.00161.37           N
ATOM    439  CD2 HIS    56      17.916 -31.667 -32.795  1.00161.37           C
ATOM    440  CE1 HIS    56      16.617 -31.016 -34.365  1.00161.37           C
ATOM    441  C   HIS    56      14.343 -33.432 -30.669  1.00161.37           C
ATOM    442  O   HIS    56      13.758 -33.062 -31.685  1.00161.37           O
ATOM    443  N   THR    57      13.704 -33.965 -29.606  1.00134.09           N
ATOM    444  CA  THR    57      12.301 -34.250 -29.572  1.00134.09           C
ATOM    445  CB  THR    57      12.070 -35.742 -29.575  1.00134.09           C
ATOM    446  OG1 THR    57      10.792 -36.090 -30.086  1.00134.09           O
ATOM    447  CG2 THR    57      12.229 -36.252 -28.134  1.00134.09           C
ATOM    448  C   THR    57      11.831 -33.649 -28.267  1.00134.09           C
ATOM    449  O   THR    57      12.573 -32.871 -27.670  1.00134.09           O
ATOM    450  N   PRO    58      10.651 -33.927 -27.771  1.00150.45           N
ATOM    451  CA  PRO    58      10.293 -33.342 -26.508  1.00150.45           C
ATOM    452  CD  PRO    58       9.478 -34.042 -28.625  1.00150.45           C
ATOM    453  CB  PRO    58       8.812 -33.652 -26.314  1.00150.45           C
ATOM    454  CG  PRO    58       8.275 -33.632 -27.756  1.00150.45           C
ATOM    455  C   PRO    58      11.203 -33.796 -25.417  1.00150.45           C
ATOM    456  O   PRO    58      11.159 -33.225 -24.329  1.00150.45           O
ATOM    457  N   MET    59      11.961 -34.873 -25.671  1.00155.68           N
ATOM    458  CA  MET    59      12.945 -35.422 -24.785  1.00155.68           C
ATOM    459  CB  MET    59      13.427 -36.810 -25.222  1.00155.68           C
ATOM    460  CG  MET    59      14.487 -36.789 -26.321  1.00155.68           C
ATOM    461  SD  MET    59      15.056 -38.443 -26.804  1.00155.68           S
ATOM    462  CE  MET    59      15.829 -38.821 -25.205  1.00155.68           C
ATOM    463  C   MET    59      14.165 -34.556 -24.733  1.00155.68           C
ATOM    464  O   MET    59      14.851 -34.525 -23.712  1.00155.68           O
ATOM    465  N   TYR    60      14.482 -33.835 -25.827  1.00158.00           N
ATOM    466  CA  TYR    60      15.753 -33.166 -25.908  1.00158.00           C
ATOM    467  CB  TYR    60      16.003 -32.379 -27.219  1.00158.00           C
ATOM    468  CG  TYR    60      15.462 -30.988 -27.145  1.00158.00           C
ATOM    469  CD1 TYR    60      16.248 -29.979 -26.632  1.00158.00           C
ATOM    470  CD2 TYR    60      14.204 -30.671 -27.602  1.00158.00           C
ATOM    471  CE1 TYR    60      15.787 -28.688 -26.549  1.00158.00           C
ATOM    472  CE2 TYR    60      13.734 -29.379 -27.523  1.00158.00           C
ATOM    473  CZ  TYR    60      14.526 -28.386 -26.995  1.00158.00           C
ATOM    474  OH  TYR    60      14.053 -27.060 -26.909  1.00158.00           O
ATOM    475  C   TYR    60      15.879 -32.216 -24.764  1.00158.00           C
ATOM    476  O   TYR    60      16.954 -32.083 -24.182  1.00158.00           O
ATOM    477  N   PHE    61      14.795 -31.509 -24.407  1.00 48.88           N
ATOM    478  CA  PHE    61      14.934 -30.604 -23.306  1.00 48.88           C
ATOM    479  CB  PHE    61      13.665 -29.797 -22.986  1.00 48.88           C
ATOM    480  CG  PHE    61      14.039 -28.848 -21.898  1.00 48.88           C
ATOM    481  CD1 PHE    61      14.695 -27.673 -22.193  1.00 48.88           C
ATOM    482  CD2 PHE    61      13.735 -29.127 -20.586  1.00 48.88           C
ATOM    483  CE1 PHE    61      15.046 -26.790 -21.200  1.00 48.88           C
ATOM    484  CE2 PHE    61      14.083 -28.247 -19.586  1.00 48.88           C
ATOM    485  CZ  PHE    61      14.738 -27.078 -19.892  1.00 48.88           C
ATOM    486  C   PHE    61      15.273 -31.427 -22.106  1.00 48.88           C
ATOM    487  O   PHE    61      16.131 -31.059 -21.304  1.00 48.88           O
ATOM    488  N   PHE    62      14.607 -32.586 -21.972  1.00 66.79           N
ATOM    489  CA  PHE    62      14.803 -33.463 -20.857  1.00 66.79           C
ATOM    490  CB  PHE    62      13.848 -34.669 -20.847  1.00 66.79           C
ATOM    491  CG  PHE    62      12.511 -34.173 -20.412  1.00 66.79           C
ATOM    492  CD1 PHE    62      11.626 -33.624 -21.312  1.00 66.79           C
ATOM    493  CD2 PHE    62      12.147 -34.257 -19.087  1.00 66.79           C
ATOM    494  CE1 PHE    62      10.397 -33.168 -20.898  1.00 66.79           C
ATOM    495  CE2 PHE    62      10.920 -33.801 -18.667  1.00 66.79           C
ATOM    496  CZ  PHE    62      10.041 -33.258 -19.573  1.00 66.79           C
ATOM    497  C   PHE    62      16.201 -33.974 -20.835  1.00 66.79           C
ATOM    498  O   PHE    62      16.772 -34.098 -19.761  1.00 66.79           O
ATOM    499  N   LEU    63      16.802 -34.305 -21.989  1.00 82.29           N
ATOM    500  CA  LEU    63      18.121 -34.865 -21.931  1.00 82.29           C
ATOM    501  CB  LEU    63      18.600 -35.444 -23.263  1.00 82.29           C
ATOM    502  CG  LEU    63      17.728 -36.642 -23.668  1.00 82.29           C
ATOM    503  CD1 LEU    63      18.397 -37.443 -24.781  1.00 82.29           C
ATOM    504  CD2 LEU    63      17.338 -37.504 -22.455  1.00 82.29           C
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ATOM    505  C   LEU    63      19.114 -33.881 -21.403  1.00 82.29           C
ATOM    506  O   LEU    63      20.023 -34.263 -20.667  1.00 82.29           O
ATOM    507  N   ALA    64      18.989 -32.590 -21.754  1.00 33.45           N
ATOM    508  CA  ALA    64      19.948 -31.658 -21.230  1.00 33.45           C
ATOM    509  CB  ALA    64      19.693 -30.218 -21.699  1.00 33.45           C
ATOM    510  C   ALA    64      19.818 -31.696 -19.739  1.00 33.45           C
ATOM    511  O   ALA    64      20.808 -31.716 -19.008  1.00 33.45           O
ATOM    512  N   ASN    65      18.565 -31.745 -19.261  1.00 60.60           N
ATOM    513  CA  ASN    65      18.259 -31.798 -17.862  1.00 60.60           C
ATOM    514  CB  ASN    65      16.742 -31.794 -17.613  1.00 60.60           C
ATOM    515  CG  ASN    65      16.490 -32.074 -16.139  1.00 60.60           C
ATOM    516  OD1 ASN    65      17.108 -31.476 -15.260  1.00 60.60           O
ATOM    517  ND2 ASN    65      15.559 -33.027 -15.864  1.00 60.60           N
ATOM    518  C   ASN    65      18.791 -33.072 -17.284  1.00 60.60           C
ATOM    519  O   ASN    65      19.277 -33.090 -16.159  1.00 60.60           O
ATOM    520  N   LEU    66      18.709 -34.167 -18.055  1.00126.45           N
ATOM    521  CA  LEU    66      19.045 -35.505 -17.667  1.00126.45           C
ATOM    522  CB  LEU    66      18.802 -36.491 -18.833  1.00126.45           C
ATOM    523  CG  LEU    66      18.931 -37.998 -18.521  1.00126.45           C
ATOM    524  CD1 LEU    66      20.339 -38.395 -18.053  1.00126.45           C
ATOM    525  CD2 LEU    66      17.814 -38.467 -17.583  1.00126.45           C
ATOM    526  C   LEU    66      20.495 -35.552 -17.335  1.00126.45           C
ATOM    527  O   LEU    66      20.892 -36.194 -16.366  1.00126.45           O
ATOM    528  N   SER    67      21.339 -34.887 -18.141  1.00 25.30           N
ATOM    529  CA  SER    67      22.739 -34.958 -17.853  1.00 25.30           C
ATOM    530  CB  SER    67      23.605 -34.163 -18.844  1.00 25.30           C
ATOM    531  OG  SER    67      23.299 -32.778 -18.765  1.00 25.30           O
ATOM    532  C   SER    67      22.934 -34.362 -16.506  1.00 25.30           C
ATOM    533  O   SER    67      23.668 -34.892 -15.678  1.00 25.30           O
ATOM    534  N   LEU    68      22.258 -33.230 -16.257  1.00 47.50           N
ATOM    535  CA  LEU    68      22.369 -32.554 -15.002  1.00 47.50           C
ATOM    536  CB  LEU    68      21.545 -31.256 -14.980  1.00 47.50           C
ATOM    537  CG  LEU    68      21.602 -30.488 -13.647  1.00 47.50           C
ATOM    538  CD1 LEU    68      22.995 -29.891 -13.398  1.00 47.50           C
ATOM    539  CD2 LEU    68      20.474 -29.449 -13.553  1.00 47.50           C
ATOM    540  C   LEU    68      21.815 -33.420 -13.917  1.00 47.50           C
ATOM    541  O   LEU    68      22.415 -33.564 -12.856  1.00 47.50           O
ATOM    542  N   ALA    69      20.633 -34.012 -14.154  1.00 47.96           N
ATOM    543  CA  ALA    69      19.970 -34.773 -13.141  1.00 47.96           C
ATOM    544  CB  ALA    69      18.573 -35.246 -13.580  1.00 47.96           C
ATOM    545  C   ALA    69      20.764 -35.987 -12.803  1.00 47.96           C
ATOM    546  O   ALA    69      21.028 -36.265 -11.635  1.00 47.96           O
ATOM    547  N   ASP    70      21.167 -36.750 -13.831  1.00 66.81           N
ATOM    548  CA  ASP    70      21.902 -37.947 -13.572  1.00 66.81           C
ATOM    549  CB  ASP    70      21.898 -38.926 -14.750  1.00 66.81           C
ATOM    550  CG  ASP    70      20.484 -39.495 -14.747  1.00 66.81           C
ATOM    551  OD1 ASP    70      19.730 -39.182 -13.787  1.00 66.81           O
ATOM    552  OD2 ASP    70      20.136 -40.250 -15.692  1.00 66.81           O
ATOM    553  C   ASP    70      23.290 -37.628 -13.131  1.00 66.81           C
ATOM    554  O   ASP    70      23.832 -38.281 -12.244  1.00 66.81           O
ATOM    555  N   ALA    71      23.927 -36.619 -13.740  1.00 35.21           N
ATOM    556  CA  ALA    71      25.255 -36.317 -13.305  1.00 35.21           C
ATOM    557  CB  ALA    71      25.918 -35.206 -14.139  1.00 35.21           C
ATOM    558  C   ALA    71      25.185 -35.843 -11.891  1.00 35.21           C
ATOM    559  O   ALA    71      25.913 -36.320 -11.023  1.00 35.21           O
ATOM    560  N   CYS    72      24.272 -34.900 -11.608  1.00 91.85           N
ATOM    561  CA  CYS    72      24.214 -34.382 -10.278  1.00 91.85           C
ATOM    562  CB  CYS    72      23.161 -33.273 -10.105  1.00 91.85           C
ATOM    563  SG  CYS    72      23.587 -31.737 -10.978  1.00 91.85           S
ATOM    564  C   CYS    72      23.848 -35.482  -9.339  1.00 91.85           C
ATOM    565  O   CYS    72      24.590 -35.781  -8.405  1.00 91.85           O
ATOM    566  N   PHE    73      22.682 -36.119  -9.559  1.00 91.74           N
ATOM    567  CA  PHE    73      22.293 -37.127  -8.618  1.00 91.74           C
ATOM    568  CB  PHE    73      20.850 -37.615  -8.799  1.00 91.74           C
ATOM    569  CG  PHE    73      20.728 -38.777  -7.878  1.00 91.74           C
ATOM    570  CD1 PHE    73      20.589 -38.571  -6.527  1.00 91.74           C
ATOM    571  CD2 PHE    73      20.755 -40.066  -8.364  1.00 91.74           C
ATOM    572  CE1 PHE    73      20.481 -39.639  -5.672  1.00 91.74           C
ATOM    573  CE2 PHE    73      20.645 -41.137  -7.510  1.00 91.74           C
ATOM    574  CZ  PHE    73      20.507 -40.923  -6.160  1.00 91.74           C
ATOM    575  C   PHE    73      23.135 -38.353  -8.690  1.00 91.74           C
ATOM    576  O   PHE    73      23.832 -38.716  -7.745  1.00 91.74           O
ATOM    577  N   VAL    74      23.112 -39.023  -9.849  1.00 86.53           N
ATOM    578  CA  VAL    74      23.798 -40.273  -9.915  1.00 86.53           C
ATOM    579  CB  VAL    74      23.591 -40.970 -11.225  1.00 86.53           C
ATOM    580  CG1 VAL    74      24.487 -42.221 -11.254  1.00 86.53           C
ATOM    581  CG2 VAL    74      22.089 -41.255 -11.402  1.00 86.53           C
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ATOM    582  C   VAL    74      25.261 -40.051  -9.786  1.00 86.53           C
ATOM    583  O   VAL    74      25.936 -40.633  -8.938  1.00 86.53           O
ATOM    584  N   SER    75      25.792 -39.166 -10.636  1.00139.01           N
ATOM    585  CA  SER    75      27.212 -39.077 -10.655  1.00139.01           C
ATOM    586  CB  SER    75      27.746 -38.201 -11.802  1.00139.01           C
ATOM    587  OG  SER    75      27.406 -38.773 -13.057  1.00139.01           O
ATOM    588  C   SER    75      27.778 -38.545  -9.384  1.00139.01           C
ATOM    589  O   SER    75      28.241 -39.293  -8.525  1.00139.01           O
ATOM    590  N   THR    76      27.736 -37.211  -9.237  1.00120.48           N
ATOM    591  CA  THR    76      28.435 -36.585  -8.158  1.00120.48           C
ATOM    592  CB  THR    76      28.523 -35.094  -8.321  1.00120.48           C
ATOM    593  OG1 THR    76      29.329 -34.536  -7.293  1.00120.48           O
ATOM    594  CG2 THR    76      27.108 -34.496  -8.283  1.00120.48           C
ATOM    595  C   THR    76      27.861 -36.874  -6.806  1.00120.48           C
ATOM    596  O   THR    76      28.594 -37.252  -5.894  1.00120.48           O
ATOM    597  N   THR    77      26.536 -36.714  -6.637  1.00 63.95           N
ATOM    598  CA  THR    77      25.948 -36.789  -5.329  1.00 63.95           C
ATOM    599  CB  THR    77      24.586 -36.150  -5.232  1.00 63.95           C
ATOM    600  OG1 THR    77      23.619 -36.868  -5.977  1.00 63.95           O
ATOM    601  CG2 THR    77      24.691 -34.716  -5.779  1.00 63.95           C
ATOM    602  C   THR    77      25.901 -38.187  -4.790  1.00 63.95           C
ATOM    603  O   THR    77      25.976 -38.379  -3.577  1.00 63.95           O
ATOM    604  N   VAL    78      25.783 -39.206  -5.663  1.00 57.94           N
ATOM    605  CA  VAL    78      25.613 -40.554  -5.192  1.00 57.94           C
ATOM    606  CB  VAL    78      25.481 -41.575  -6.283  1.00 57.94           C
ATOM    607  CG1 VAL    78      25.562 -42.969  -5.638  1.00 57.94           C
ATOM    608  CG2 VAL    78      24.140 -41.342  -6.996  1.00 57.94           C
ATOM    609  C   VAL    78      26.742 -40.987  -4.309  1.00 57.94           C
ATOM    610  O   VAL    78      26.492 -41.673  -3.319  1.00 57.94           O
ATOM    611  N   PRO    79      27.967 -40.644  -4.576  1.00 67.25           N
ATOM    612  CA  PRO    79      29.025 -41.123  -3.732  1.00 67.25           C
ATOM    613  CD  PRO    79      28.424 -40.384  -5.929  1.00 67.25           C
ATOM    614  CB  PRO    79      30.316 -40.696  -4.423  1.00 67.25           C
ATOM    615  CG  PRO    79      29.931 -40.693  -5.916  1.00 67.25           C
ATOM    616  C   PRO    79      28.855 -40.664  -2.319  1.00 67.25           C
ATOM    617  O   PRO    79      29.339 -41.342  -1.413  1.00 67.25           O
ATOM    618  N   LYS    80      28.184 -39.518  -2.107  1.00115.21           N
ATOM    619  CA  LYS    80      27.928 -39.044  -0.778  1.00115.21           C
ATOM    620  CB  LYS    80      27.208 -37.682  -0.745  1.00115.21           C
ATOM    621  CG  LYS    80      26.758 -37.268   0.660  1.00115.21           C
ATOM    622  CD  LYS    80      27.911 -37.031   1.637  1.00115.21           C
ATOM    623  CE  LYS    80      27.467 -36.764   3.078  1.00115.21           C
ATOM    624  NZ  LYS    80      28.651 -36.709   3.966  1.00115.21           N
ATOM    625  C   LYS    80      27.038 -40.050  -0.129  1.00115.21           C
ATOM    626  O   LYS    80      27.124 -40.299   1.073  1.00115.21           O
ATOM    627  N   MET    81      26.145 -40.651  -0.935  1.00116.06           N
ATOM    628  CA  MET    81      25.200 -41.617  -0.461  1.00116.06           C
ATOM    629  CB  MET    81      24.276 -42.137  -1.575  1.00116.06           C
ATOM    630  CG  MET    81      23.217 -43.119  -1.073  1.00116.06           C
ATOM    631  SD  MET    81      21.905 -42.349  -0.080  1.00116.06           S
ATOM    632  CE  MET    81      22.929 -42.107   1.399  1.00116.06           C
ATOM    633  C   MET    81      25.935 -42.801   0.091  1.00116.06           C
ATOM    634  O   MET    81      25.605 -43.296   1.167  1.00116.06           O
ATOM    635  N   LEU    82      26.976 -43.277  -0.616  1.00 38.57           N
ATOM    636  CA  LEU    82      27.700 -44.418  -0.135  1.00 38.57           C
ATOM    637  CB  LEU    82      28.857 -44.834  -1.058  1.00 38.57           C
ATOM    638  CG  LEU    82      28.391 -45.391  -2.414  1.00 38.57           C
ATOM    639  CD1 LEU    82      29.589 -45.799  -3.286  1.00 38.57           C
ATOM    640  CD2 LEU    82      27.369 -46.526  -2.227  1.00 38.57           C
ATOM    641  C   LEU    82      28.299 -44.028   1.171  1.00 38.57           C
ATOM    642  O   LEU    82      28.305 -44.803   2.127  1.00 38.57           O
ATOM    643  N   ALA    83      28.781 -42.778   1.249  1.00 32.90           N
ATOM    644  CA  ALA    83      29.422 -42.306   2.436  1.00 32.90           C
ATOM    645  CB  ALA    83      29.851 -40.833   2.333  1.00 32.90           C
ATOM    646  C   ALA    83      28.434 -42.413   3.550  1.00 32.90           C
ATOM    647  O   ALA    83      28.787 -42.752   4.679  1.00 32.90           O
ATOM    648  N   ASN    84      27.154 -42.133   3.260  1.00 85.31           N
ATOM    649  CA  ASN    84      26.170 -42.162   4.300  1.00 85.31           C
ATOM    650  CB  ASN    84      24.762 -41.885   3.743  1.00 85.31           C
ATOM    651  CG  ASN    84      23.759 -41.812   4.881  1.00 85.31           C
ATOM    652  OD1 ASN    84      23.613 -42.750   5.663  1.00 85.31           O
ATOM    653  ND2 ASN    84      23.048 -40.657   4.974  1.00 85.31           N
ATOM    654  C   ASN    84      26.144 -43.526   4.927  1.00 85.31           C
ATOM    655  O   ASN    84      26.255 -43.655   6.146  1.00 85.31           O
ATOM    656  N   ILE    85      25.994 -44.582   4.104  1.00103.90           N
ATOM    657  CA  ILE    85      25.903 -45.926   4.606  1.00103.90           C
ATOM    658  CB  ILE    85      25.474 -46.922   3.563  1.00103.90           C
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ATOM    659  CG2 ILE    85      26.483 -46.882   2.403  1.00103.90           C
ATOM    660  CG1 ILE    85      25.298 -48.311   4.201  1.00103.90           C
ATOM    661  CD1 ILE    85      24.694 -49.352   3.263  1.00103.90           C
ATOM    662  C   ILE    85      27.201 -46.420   5.167  1.00103.90           C
ATOM    663  O   ILE    85      27.235 -46.982   6.260  1.00103.90           O
ATOM    664  N   GLN    86      28.313 -46.198   4.442  1.00 81.52           N
ATOM    665  CA  GLN    86      29.562 -46.795   4.817  1.00 81.52           C
ATOM    666  CB  GLN    86      30.689 -46.480   3.825  1.00 81.52           C
ATOM    667  CG  GLN    86      30.353 -46.950   2.409  1.00 81.52           C
ATOM    668  CD  GLN    86      30.068 -48.445   2.473  1.00 81.52           C
ATOM    669  OE1 GLN    86      30.963 -49.250   2.727  1.00 81.52           O
ATOM    670  NE2 GLN    86      28.784 -48.831   2.239  1.00 81.52           N
ATOM    671  C   GLN    86      29.962 -46.305   6.164  1.00 81.52           C
ATOM    672  O   GLN    86      30.448 -47.070   6.995  1.00 81.52           O
ATOM    673  N   ILE    87      29.741 -45.009   6.425  1.00165.14           N
ATOM    674  CA  ILE    87      30.095 -44.464   7.696  1.00165.14           C
ATOM    675  CB  ILE    87      29.788 -42.988   7.800  1.00165.14           C
ATOM    676  CG2 ILE    87      28.264 -42.796   7.848  1.00165.14           C
ATOM    677  CG1 ILE    87      30.544 -42.333   8.971  1.00165.14           C
ATOM    678  CD1 ILE    87      30.195 -42.897  10.344  1.00165.14           C
ATOM    679  C   ILE    87      29.291 -45.225   8.697  1.00165.14           C
ATOM    680  O   ILE    87      29.768 -45.543   9.785  1.00165.14           O
ATOM    681  N   GLN    88      28.045 -45.569   8.321  1.00298.59           N
ATOM    682  CA  GLN    88      27.134 -46.220   9.209  1.00298.59           C
ATOM    683  CB  GLN    88      27.657 -47.534   9.818  1.00298.59           C
ATOM    684  CG  GLN    88      26.634 -48.220  10.728  1.00298.59           C
ATOM    685  CD  GLN    88      27.208 -49.559  11.167  1.00298.59           C
ATOM    686  OE1 GLN    88      28.413 -49.791  11.076  1.00298.59           O
ATOM    687  NE2 GLN    88      26.321 -50.471  11.650  1.00298.59           N
ATOM    688  C   GLN    88      26.909 -45.238  10.296  1.00298.59           C
ATOM    689  O   GLN    88      27.585 -45.230  11.323  1.00298.59           O
ATOM    690  N   SER    89      25.924 -44.363  10.049  1.00186.13           N
ATOM    691  CA  SER    89      25.600 -43.299  10.937  1.00186.13           C
ATOM    692  CB  SER    89      26.827 -42.555  11.491  1.00186.13           C
ATOM    693  OG  SER    89      27.521 -41.907  10.435  1.00186.13           O
ATOM    694  C   SER    89      24.832 -42.340  10.099  1.00186.13           C
ATOM    695  O   SER    89      24.068 -42.737   9.220  1.00186.13           O
ATOM    696  N   GLN    90      25.004 -41.035  10.361  1.00177.43           N
ATOM    697  CA  GLN    90      24.307 -40.066   9.578  1.00177.43           C
ATOM    698  CB  GLN    90      23.778 -38.873  10.393  1.00177.43           C
ATOM    699  CG  GLN    90      24.893 -38.000  10.973  1.00177.43           C
ATOM    700  CD  GLN    90      25.625 -38.811  12.031  1.00177.43           C
ATOM    701  OE1 GLN    90      25.091 -39.074  13.108  1.00177.43           O
ATOM    702  NE2 GLN    90      26.881 -39.228  11.714  1.00177.43           N
ATOM    703  C   GLN    90      25.280 -39.509   8.594  1.00177.43           C
ATOM    704  O   GLN    90      26.488 -39.711   8.702  1.00177.43           O
ATOM    705  N   ALA    91      24.753 -38.829   7.561  1.00 54.37           N
ATOM    706  CA  ALA    91      25.599 -38.176   6.612  1.00 54.37           C
ATOM    707  CB  ALA    91      24.911 -37.873   5.267  1.00 54.37           C
ATOM    708  C   ALA    91      25.983 -36.868   7.222  1.00 54.37           C
ATOM    709  O   ALA    91      25.356 -36.411   8.176  1.00 54.37           O
ATOM    710  N   ILE    92      27.068 -36.248   6.721  1.00173.36           N
ATOM    711  CA  ILE    92      27.413 -34.963   7.248  1.00173.36           C
ATOM    712  CB  ILE    92      28.726 -34.952   8.001  1.00173.36           C
ATOM    713  CG2 ILE    92      29.876 -35.235   7.022  1.00173.36           C
ATOM    714  CG1 ILE    92      28.903 -33.657   8.818  1.00173.36           C
ATOM    715  CD1 ILE    92      29.025 -32.372   7.998  1.00173.36           C
ATOM    716  C   ILE    92      27.481 -34.005   6.099  1.00173.36           C
ATOM    717  O   ILE    92      28.166 -34.265   5.111  1.00173.36           O
ATOM    718  N   SER    93      26.715 -32.895   6.211  1.00256.26           N
ATOM    719  CA  SER    93      26.653 -31.796   5.280  1.00256.26           C
ATOM    720  CB  SER    93      27.173 -32.057   3.851  1.00256.26           C
ATOM    721  OG  SER    93      28.594 -32.063   3.840  1.00256.26           O
ATOM    722  C   SER    93      25.229 -31.346   5.178  1.00256.26           C
ATOM    723  O   SER    93      24.365 -31.794   5.930  1.00256.26           O
ATOM    724  N   TYR    94      24.973 -30.408   4.241  1.00249.33           N
ATOM    725  CA  TYR    94      23.663 -29.869   4.000  1.00249.33           C
ATOM    726  CB  TYR    94      23.773 -28.333   3.858  1.00249.33           C
ATOM    727  CG  TYR    94      22.457 -27.631   3.774  1.00249.33           C
ATOM    728  CD1 TYR    94      21.778 -27.294   4.921  1.00249.33           C
ATOM    729  CD2 TYR    94      21.915 -27.272   2.560  1.00249.33           C
ATOM    730  CE1 TYR    94      20.575 -26.634   4.854  1.00249.33           C
ATOM    731  CE2 TYR    94      20.711 -26.611   2.486  1.00249.33           C
ATOM    732  CZ  TYR    94      20.037 -26.292   3.639  1.00249.33           C
ATOM    733  OH  TYR    94      18.801 -25.613   3.578  1.00249.33           O
ATOM    734  C   TYR    94      23.258 -30.424   2.669  1.00249.33           C
ATOM    735  O   TYR    94      22.362 -29.912   1.999  1.00249.33           O
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ATOM	736	N	SER	95	23.889	-31.546	2.284	1.00116.79	N
ATOM	737	CA	SER	95	23.685	-32.147	1.000	1.00116.79	C
ATOM	738	CB	SER	95	24.724	-33.237	0.688	1.00116.79	C
ATOM	739	OG	SER	95	24.583	-34.318	1.598	1.00116.79	O
ATOM	740	C	SER	95	22.343	-32.794	0.907	1.00116.79	C
ATOM	741	O	SER	95	21.836	-32.989	-0.195	1.00116.79	O
ATOM	742	N	GLY	96	21.728	-33.166	2.044	1.00130.00	N
ATOM	743	CA	GLY	96	20.532	-33.946	1.896	1.00130.00	C
ATOM	744	C	GLY	96	19.466	-33.196	1.160	1.00130.00	C
ATOM	745	O	GLY	96	19.003	-33.639	0.110	1.00130.00	O
ATOM	746	N	CYS	97	19.011	-32.053	1.702	1.00101.13	N
ATOM	747	CA	CYS	97	18.039	-31.292	0.978	1.00101.13	C
ATOM	748	CB	CYS	97	17.027	-30.554	1.859	1.00101.13	C
ATOM	749	SG	CYS	97	15.881	-31.767	2.596	1.00101.13	S
ATOM	750	C	CYS	97	18.682	-30.412	-0.040	1.00101.13	C
ATOM	751	O	CYS	97	18.084	-30.102	-1.067	1.00101.13	O
ATOM	752	N	LEU	98	19.930	-29.973	0.206	1.00148.85	N
ATOM	753	CA	LEU	98	20.492	-29.050	-0.729	1.00148.85	C
ATOM	754	CB	LEU	98	21.859	-28.475	-0.308	1.00148.85	C
ATOM	755	CG	LEU	98	22.407	-27.400	-1.278	1.00148.85	C
ATOM	756	CD1	LEU	98	22.979	-28.000	-2.574	1.00148.85	C
ATOM	757	CD2	LEU	98	21.341	-26.326	-1.559	1.00148.85	C
ATOM	758	C	LEU	98	20.636	-29.695	-2.068	1.00148.85	C
ATOM	759	O	LEU	98	20.386	-29.044	-3.073	1.00148.85	O
ATOM	760	N	LEU	99	21.151	-30.931	-2.159	1.00194.10	N
ATOM	761	CA	LEU	99	21.256	-31.518	-3.466	1.00194.10	C
ATOM	762	CB	LEU	99	22.375	-32.568	-3.539	1.00194.10	C
ATOM	763	CG	LEU	99	23.765	-31.942	-3.297	1.00194.10	C
ATOM	764	CD1	LEU	99	24.887	-32.987	-3.396	1.00194.10	C
ATOM	765	CD2	LEU	99	23.997	-30.726	-4.208	1.00194.10	C
ATOM	766	C	LEU	99	19.980	-32.118	-3.990	1.00194.10	C
ATOM	767	O	LEU	99	19.512	-31.751	-5.065	1.00194.10	O
ATOM	768	N	GLN	100	19.364	-33.045	-3.226	1.00113.91	N
ATOM	769	CA	GLN	100	18.253	-33.816	-3.722	1.00113.91	C
ATOM	770	CB	GLN	100	17.926	-35.026	-2.836	1.00113.91	C
ATOM	771	CG	GLN	100	19.001	-36.115	-2.888	1.00113.91	C
ATOM	772	CD	GLN	100	20.148	-35.710	-1.979	1.00113.91	C
ATOM	773	OE1	GLN	100	20.156	-36.025	-0.790	1.00113.91	O
ATOM	774	NE2	GLN	100	21.153	-35.001	-2.555	1.00113.91	N
ATOM	775	C	GLN	100	17.008	-33.011	-3.896	1.00113.91	C
ATOM	776	O	GLN	100	16.340	-33.103	-4.924	1.00113.91	O
ATOM	777	N	LEU	101	16.654	-32.206	-2.885	1.00107.15	N
ATOM	778	CA	LEU	101	15.463	-31.413	-2.938	1.00107.15	C
ATOM	779	CB	LEU	101	15.254	-30.660	-1.612	1.00107.15	C
ATOM	780	CG	LEU	101	13.995	-29.783	-1.536	1.00107.15	C
ATOM	781	CD1	LEU	101	12.716	-30.639	-1.557	1.00107.15	C
ATOM	782	CD2	LEU	101	14.068	-28.840	-0.324	1.00107.15	C
ATOM	783	C	LEU	101	15.667	-30.396	-4.007	1.00107.15	C
ATOM	784	O	LEU	101	14.775	-30.117	-4.808	1.00107.15	O
ATOM	785	N	TYR	102	16.886	-29.834	-4.056	1.00117.62	N
ATOM	786	CA	TYR	102	17.126	-28.757	-4.960	1.00117.62	C
ATOM	787	CB	TYR	102	18.530	-28.154	-4.849	1.00117.62	C
ATOM	788	CG	TYR	102	18.590	-26.896	-5.647	1.00117.62	C
ATOM	789	CD1	TYR	102	18.918	-26.906	-6.985	1.00117.62	C
ATOM	790	CD2	TYR	102	18.312	-25.695	-5.037	1.00117.62	C
ATOM	791	CE1	TYR	102	18.971	-25.729	-7.695	1.00117.62	C
ATOM	792	CE2	TYR	102	18.363	-24.516	-5.742	1.00117.62	C
ATOM	793	CZ	TYR	102	18.695	-24.533	-7.075	1.00117.62	C
ATOM	794	OH	TYR	102	18.751	-23.329	-7.809	1.00117.62	O
ATOM	795	C	TYR	102	16.963	-29.210	-6.371	1.00117.62	C
ATOM	796	O	TYR	102	16.256	-28.560	-7.138	1.00117.62	O
ATOM	797	N	PHE	103	17.578	-30.340	-6.771	1.00195.36	N
ATOM	798	CA	PHE	103	17.437	-30.660	-8.160	1.00195.36	C
ATOM	799	CB	PHE	103	18.500	-31.609	-8.776	1.00195.36	C
ATOM	800	CG	PHE	103	18.449	-33.025	-8.325	1.00195.36	C
ATOM	801	CD1	PHE	103	19.100	-33.428	-7.185	1.00195.36	C
ATOM	802	CD2	PHE	103	17.767	-33.961	-9.063	1.00195.36	C
ATOM	803	CE1	PHE	103	19.067	-34.739	-6.777	1.00195.36	C
ATOM	804	CE2	PHE	103	17.731	-35.274	-8.663	1.00195.36	C
ATOM	805	CZ	PHE	103	18.380	-35.666	-7.518	1.00195.36	C
ATOM	806	C	PHE	103	16.020	-31.050	-8.463	1.00195.36	C
ATOM	807	O	PHE	103	15.527	-30.810	-9.565	1.00195.36	O
ATOM	808	N	PHE	104	15.313	-31.672	-7.501	1.00128.64	N
ATOM	809	CA	PHE	104	13.953	-32.057	-7.761	1.00128.64	C
ATOM	810	CB	PHE	104	13.354	-33.058	-6.761	1.00128.64	C
ATOM	811	CG	PHE	104	13.979	-34.343	-7.181	1.00128.64	C
ATOM	812	CD1	PHE	104	13.583	-34.933	-8.360	1.00128.64	C

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ATOM    813  CD2 PHE   104      14.977 -34.935  -6.446  1.00128.64           C
ATOM    814  CE1 PHE   104      14.153 -36.105  -8.796  1.00128.64           C
ATOM    815  CE2 PHE   104      15.547 -36.108  -6.878  1.00128.64           C
ATOM    816  CZ  PHE   104      15.143 -36.698  -8.053  1.00128.64           C
ATOM    817  C   PHE   104      13.046 -30.877  -7.957  1.00128.64           C
ATOM    818  O   PHE   104      12.172 -30.915  -8.821  1.00128.64           O
ATOM    819  N   MET   105      13.229 -29.783  -7.195  1.00113.41           N
ATOM    820  CA  MET   105      12.349 -28.652  -7.323  1.00113.41           C
ATOM    821  CB  MET   105      12.735 -27.490  -6.389  1.00113.41           C
ATOM    822  CG  MET   105      11.641 -26.436  -6.185  1.00113.41           C
ATOM    823  SD  MET   105      11.192 -25.482  -7.663  1.00113.41           S
ATOM    824  CE  MET   105      12.775 -24.602  -7.794  1.00113.41           C
ATOM    825  C   MET   105      12.467 -28.162  -8.730  1.00113.41           C
ATOM    826  O   MET   105      11.484 -27.768  -9.355  1.00113.41           O
ATOM    827  N   LEU   106      13.695 -28.190  -9.266  1.00137.61           N
ATOM    828  CA  LEU   106      13.946 -27.779 -10.612  1.00137.61           C
ATOM    829  CB  LEU   106      15.437 -27.952 -10.972  1.00137.61           C
ATOM    830  CG  LEU   106      15.857 -27.476 -12.374  1.00137.61           C
ATOM    831  CD1 LEU   106      15.829 -25.944 -12.471  1.00137.61           C
ATOM    832  CD2 LEU   106      17.222 -28.060 -12.775  1.00137.61           C
ATOM    833  C   LEU   106      13.161 -28.711 -11.476  1.00137.61           C
ATOM    834  O   LEU   106      12.617 -28.299 -12.495  1.00137.61           O
ATOM    835  N   PHE   107      13.094 -30.004 -11.101  1.00 47.87           N
ATOM    836  CA  PHE   107      12.387 -30.980 -11.888  1.00 47.87           C
ATOM    837  CB  PHE   107      12.533 -32.418 -11.359  1.00 47.87           C
ATOM    838  CG  PHE   107      11.817 -33.303 -12.323  1.00 47.87           C
ATOM    839  CD1 PHE   107      12.456 -33.748 -13.458  1.00 47.87           C
ATOM    840  CD2 PHE   107      10.513 -33.681 -12.100  1.00 47.87           C
ATOM    841  CE1 PHE   107      11.809 -34.563 -14.356  1.00 47.87           C
ATOM    842  CE2 PHE   107       9.860 -34.497 -12.995  1.00 47.87           C
ATOM    843  CZ  PHE   107      10.507 -34.938 -14.125  1.00 47.87           C
ATOM    844  C   PHE   107      10.925 -30.671 -11.907  1.00 47.87           C
ATOM    845  O   PHE   107      10.292 -30.709 -12.960  1.00 47.87           O
ATOM    846  N   VAL   108      10.336 -30.365 -10.738  1.00112.31           N
ATOM    847  CA  VAL   108       8.929 -30.104 -10.716  1.00112.31           C
ATOM    848  CB  VAL   108       8.383 -30.017  -9.327  1.00112.31           C
ATOM    849  CG1 VAL   108       9.114 -28.905  -8.560  1.00112.31           C
ATOM    850  CG2 VAL   108       6.855 -29.896  -9.435  1.00112.31           C
ATOM    851  C   VAL   108       8.657 -28.860 -11.505  1.00112.31           C
ATOM    852  O   VAL   108       7.687 -28.776 -12.256  1.00112.31           O
ATOM    853  N   MET   109       9.545 -27.866 -11.367  1.00166.85           N
ATOM    854  CA  MET   109       9.474 -26.615 -12.064  1.00166.85           C
ATOM    855  CB  MET   109      10.603 -25.670 -11.642  1.00166.85           C
ATOM    856  CG  MET   109      10.697 -24.415 -12.504  1.00166.85           C
ATOM    857  SD  MET   109      11.602 -24.580 -14.076  1.00166.85           S
ATOM    858  CE  MET   109      13.201 -24.891 -13.280  1.00166.85           C
ATOM    859  C   MET   109       9.660 -26.873 -13.520  1.00166.85           C
ATOM    860  O   MET   109       9.148 -26.146 -14.371  1.00166.85           O
ATOM    861  N   LEU   110      10.428 -27.924 -13.832  1.00110.28           N
ATOM    862  CA  LEU   110      10.847 -28.223 -15.164  1.00110.28           C
ATOM    863  CB  LEU   110      11.628 -29.558 -15.221  1.00110.28           C
ATOM    864  CG  LEU   110      12.197 -30.020 -16.586  1.00110.28           C
ATOM    865  CD1 LEU   110      13.020 -31.304 -16.401  1.00110.28           C
ATOM    866  CD2 LEU   110      11.123 -30.216 -17.671  1.00110.28           C
ATOM    867  C   LEU   110       9.621 -28.339 -15.991  1.00110.28           C
ATOM    868  O   LEU   110       9.596 -27.828 -17.102  1.00110.28           O
ATOM    869  N   GLU   111       8.564 -28.997 -15.489  1.00 45.42           N
ATOM    870  CA  GLU   111       7.393 -29.143 -16.302  1.00 45.42           C
ATOM    871  CB  GLU   111       6.345 -30.092 -15.702  1.00 45.42           C
ATOM    872  CG  GLU   111       6.799 -31.552 -15.770  1.00 45.42           C
ATOM    873  CD  GLU   111       5.650 -32.442 -15.323  1.00 45.42           C
ATOM    874  OE1 GLU   111       4.588 -31.886 -14.936  1.00 45.42           O
ATOM    875  OE2 GLU   111       5.817 -33.690 -15.372  1.00 45.42           O
ATOM    876  C   GLU   111       6.764 -27.810 -16.555  1.00 45.42           C
ATOM    877  O   GLU   111       6.286 -27.549 -17.658  1.00 45.42           O
ATOM    878  N   ALA   112       6.749 -26.916 -15.550  1.00 41.14           N
ATOM    879  CA  ALA   112       6.128 -25.642 -15.768  1.00 41.14           C
ATOM    880  CB  ALA   112       6.270 -24.711 -14.557  1.00 41.14           C
ATOM    881  C   ALA   112       6.857 -24.967 -16.878  1.00 41.14           C
ATOM    882  O   ALA   112       6.265 -24.435 -17.816  1.00 41.14           O
ATOM    883  N   PHE   113       8.192 -25.004 -16.784  1.00165.55           N
ATOM    884  CA  PHE   113       9.065 -24.377 -17.723  1.00165.55           C
ATOM    885  CB  PHE   113      10.438 -23.974 -17.173  1.00165.55           C
ATOM    886  CG  PHE   113      10.131 -22.624 -16.626  1.00165.55           C
ATOM    887  CD1 PHE   113       9.573 -22.460 -15.382  1.00165.55           C
ATOM    888  CD2 PHE   113      10.367 -21.509 -17.397  1.00165.55           C
ATOM    889  CE1 PHE   113       9.283 -21.200 -14.916  1.00165.55           C
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ATOM    890  CE2 PHE   113      10.077 -20.248 -16.930  1.00165.55           C
ATOM    891  CZ  PHE   113       9.534 -20.089 -15.680  1.00165.55           C
ATOM    892  C   PHE   113       9.162 -25.088 -19.031  1.00165.55           C
ATOM    893  O   PHE   113       9.603 -24.498 -20.014  1.00165.55           O
ATOM    894  N   LEU   114       8.786 -26.375 -19.081  1.00107.11           N
ATOM    895  CA  LEU   114       8.975 -27.166 -20.261  1.00107.11           C
ATOM    896  CB  LEU   114       8.368 -28.578 -20.107  1.00107.11           C
ATOM    897  CG  LEU   114       8.790 -29.615 -21.170  1.00107.11           C
ATOM    898  CD1 LEU   114       8.116 -30.974 -20.909  1.00107.11           C
ATOM    899  CD2 LEU   114       8.571 -29.118 -22.605  1.00107.11           C
ATOM    900  C   LEU   114       8.276 -26.457 -21.381  1.00107.11           C
ATOM    901  O   LEU   114       8.812 -26.340 -22.482  1.00107.11           O
ATOM    902  N   LEU   115       7.078 -25.910 -21.113  1.00111.50           N
ATOM    903  CA  LEU   115       6.335 -25.230 -22.134  1.00111.50           C
ATOM    904  CB  LEU   115       5.029 -24.625 -21.605  1.00111.50           C
ATOM    905  CG  LEU   115       4.167 -25.680 -20.904  1.00111.50           C
ATOM    906  CD1 LEU   115       3.954 -26.869 -21.844  1.00111.50           C
ATOM    907  CD2 LEU   115       4.741 -26.096 -19.538  1.00111.50           C
ATOM    908  C   LEU   115       7.162 -24.081 -22.579  1.00111.50           C
ATOM    909  O   LEU   115       7.234 -23.763 -23.765  1.00111.50           O
ATOM    910  N   ALA   116       7.827 -23.432 -21.611  1.00 37.85           N
ATOM    911  CA  ALA   116       8.622 -22.285 -21.918  1.00 37.85           C
ATOM    912  CB  ALA   116       9.341 -21.725 -20.681  1.00 37.85           C
ATOM    913  C   ALA   116       9.669 -22.703 -22.897  1.00 37.85           C
ATOM    914  O   ALA   116       9.924 -22.010 -23.881  1.00 37.85           O
ATOM    915  N   VAL   117      10.284 -23.875 -22.668  1.00 35.36           N
ATOM    916  CA  VAL   117      11.308 -24.358 -23.546  1.00 35.36           C
ATOM    917  CB  VAL   117      11.860 -25.681 -23.102  1.00 35.36           C
ATOM    918  CG1 VAL   117      12.889 -26.157 -24.140  1.00 35.36           C
ATOM    919  CG2 VAL   117      12.422 -25.522 -21.679  1.00 35.36           C
ATOM    920  C   VAL   117      10.683 -24.556 -24.887  1.00 35.36           C
ATOM    921  O   VAL   117      11.298 -24.294 -25.919  1.00 35.36           O
ATOM    922  N   MET   118       9.431 -25.043 -24.905  1.00149.09           N
ATOM    923  CA  MET   118       8.780 -25.283 -26.157  1.00149.09           C
ATOM    924  CB  MET   118       7.355 -25.838 -25.979  1.00149.09           C
ATOM    925  CG  MET   118       6.678 -26.254 -27.287  1.00149.09           C
ATOM    926  SD  MET   118       7.364 -27.755 -28.050  1.00149.09           S
ATOM    927  CE  MET   118       6.209 -27.775 -29.452  1.00149.09           C
ATOM    928  C   MET   118       8.670 -23.971 -26.869  1.00149.09           C
ATOM    929  O   MET   118       9.007 -23.849 -28.046  1.00149.09           O
ATOM    930  N   ALA   119       8.223 -22.923 -26.158  1.00 37.85           N
ATOM    931  CA  ALA   119       8.087 -21.665 -26.822  1.00 37.85           C
ATOM    932  CB  ALA   119       7.524 -20.563 -25.905  1.00 37.85           C
ATOM    933  C   ALA   119       9.446 -21.240 -27.260  1.00 37.85           C
ATOM    934  O   ALA   119       9.638 -20.840 -28.406  1.00 37.85           O
ATOM    935  N   TYR   120      10.446 -21.381 -26.371  1.00153.99           N
ATOM    936  CA  TYR   120      11.744 -20.881 -26.708  1.00153.99           C
ATOM    937  CB  TYR   120      12.794 -21.013 -25.599  1.00153.99           C
ATOM    938  CG  TYR   120      14.058 -20.504 -26.205  1.00153.99           C
ATOM    939  CD1 TYR   120      14.277 -19.153 -26.350  1.00153.99           C
ATOM    940  CD2 TYR   120      15.028 -21.383 -26.630  1.00153.99           C
ATOM    941  CE1 TYR   120      15.443 -18.688 -26.911  1.00153.99           C
ATOM    942  CE2 TYR   120      16.196 -20.924 -27.191  1.00153.99           C
ATOM    943  CZ  TYR   120      16.406 -19.573 -27.332  1.00153.99           C
ATOM    944  OH  TYR   120      17.603 -19.099 -27.908  1.00153.99           O
ATOM    945  C   TYR   120      12.293 -21.585 -27.906  1.00153.99           C
ATOM    946  O   TYR   120      12.809 -20.932 -28.812  1.00153.99           O
ATOM    947  N   ASP   121      12.216 -22.930 -27.956  1.00 56.34           N
ATOM    948  CA  ASP   121      12.784 -23.594 -29.094  1.00 56.34           C
ATOM    949  CB  ASP   121      12.866 -25.135 -29.010  1.00 56.34           C
ATOM    950  CG  ASP   121      11.478 -25.753 -29.037  1.00 56.34           C
ATOM    951  OD1 ASP   121      10.778 -25.659 -27.997  1.00 56.34           O
ATOM    952  OD2 ASP   121      11.100 -26.329 -30.092  1.00 56.34           O
ATOM    953  C   ASP   121      11.973 -23.247 -30.294  1.00 56.34           C
ATOM    954  O   ASP   121      12.513 -23.060 -31.381  1.00 56.34           O
ATOM    955  N   CYS   122      10.644 -23.143 -30.127  1.00 51.02           N
ATOM    956  CA  CYS   122       9.801 -22.834 -31.242  1.00 51.02           C
ATOM    957  CB  CYS   122       8.304 -22.785 -30.886  1.00 51.02           C
ATOM    958  SG  CYS   122       7.616 -24.420 -30.487  1.00 51.02           S
ATOM    959  C   CYS   122      10.178 -21.486 -31.758  1.00 51.02           C
ATOM    960  O   CYS   122      10.269 -21.308 -32.963  1.00 51.02           O
ATOM    961  N   TYR   123      10.477 -20.515 -30.872  1.00132.59           N
ATOM    962  CA  TYR   123      10.718 -19.171 -31.327  1.00132.59           C
ATOM    963  CB  TYR   123      11.067 -18.144 -30.223  1.00132.59           C
ATOM    964  CG  TYR   123       9.841 -17.692 -29.484  1.00132.59           C
ATOM    965  CD1 TYR   123       8.947 -16.826 -30.073  1.00132.59           C
ATOM    966  CD2 TYR   123       9.564 -18.123 -28.209  1.00132.59           C
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ATOM    967  CE1 TYR   123       7.819 -16.394 -29.417  1.00132.59           C
ATOM    968  CE2 TYR   123       8.437 -17.702 -27.540  1.00132.59           C
ATOM    969  CZ  TYR   123       7.560 -16.833 -28.143  1.00132.59           C
ATOM    970  OH  TYR   123       6.404 -16.396 -27.461  1.00132.59           O
ATOM    971  C   TYR   123      11.825 -19.136 -32.330  1.00132.59           C
ATOM    972  O   TYR   123      11.726 -18.396 -33.307  1.00132.59           O
ATOM    973  N   VAL   124      12.909 -19.915 -32.137  1.00104.16           N
ATOM    974  CA  VAL   124      13.964 -19.864 -33.108  1.00104.16           C
ATOM    975  CB  VAL   124      15.111 -20.794 -32.810  1.00104.16           C
ATOM    976  CG1 VAL   124      14.636 -22.251 -32.909  1.00104.16           C
ATOM    977  CG2 VAL   124      16.262 -20.465 -33.773  1.00104.16           C
ATOM    978  C   VAL   124      13.357 -20.254 -34.419  1.00104.16           C
ATOM    979  O   VAL   124      13.700 -19.696 -35.461  1.00104.16           O
ATOM    980  N   ALA   125      12.459 -21.258 -34.404  1.00 80.54           N
ATOM    981  CA  ALA   125      11.812 -21.621 -35.630  1.00 80.54           C
ATOM    982  CB  ALA   125      11.067 -22.962 -35.525  1.00 80.54           C
ATOM    983  C   ALA   125      10.802 -20.601 -36.109  1.00 80.54           C
ATOM    984  O   ALA   125      10.915 -20.098 -37.224  1.00 80.54           O
ATOM    985  N   ILE   126       9.767 -20.300 -35.288  1.00126.79           N
ATOM    986  CA  ILE   126       8.677 -19.441 -35.671  1.00126.79           C
ATOM    987  CB  ILE   126       7.426 -19.719 -34.887  1.00126.79           C
ATOM    988  CG2 ILE   126       6.385 -18.655 -35.281  1.00126.79           C
ATOM    989  CG1 ILE   126       6.945 -21.165 -35.123  1.00126.79           C
ATOM    990  CD1 ILE   126       7.858 -22.234 -34.523  1.00126.79           C
ATOM    991  C   ILE   126       8.921 -17.964 -35.569  1.00126.79           C
ATOM    992  O   ILE   126       8.898 -17.252 -36.569  1.00126.79           O
ATOM    993  N   CYS   127       9.216 -17.454 -34.354  1.00 67.23           N
ATOM    994  CA  CYS   127       9.260 -16.022 -34.248  1.00 67.23           C
ATOM    995  CB  CYS   127       7.908 -15.393 -33.872  1.00 67.23           C
ATOM    996  SG  CYS   127       6.665 -15.593 -35.182  1.00 67.23           S
ATOM    997  C   CYS   127      10.202 -15.639 -33.166  1.00 67.23           C
ATOM    998  O   CYS   127      10.497 -16.439 -32.290  1.00 67.23           O
ATOM    999  N   HIS   128      10.667 -14.370 -33.196  1.00 93.32           N
ATOM   1000  CA  HIS   128      11.597 -13.904 -32.210  1.00 93.32           C
ATOM   1001  ND1 HIS   128      12.523 -11.906 -29.768  1.00 93.32           N
ATOM   1002  CG  HIS   128      11.980 -13.174 -29.811  1.00 93.32           C
ATOM   1003  CB  HIS   128      10.976 -13.649 -30.824  1.00 93.32           C
ATOM   1004  NE2 HIS   128      13.440 -13.048 -28.093  1.00 93.32           N
ATOM   1005  CD2 HIS   128      12.552 -13.855 -28.781  1.00 93.32           C
ATOM   1006  CE1 HIS   128      13.389 -11.887 -28.722  1.00 93.32           C
ATOM   1007  C   HIS   128      12.715 -14.885 -32.061  1.00 93.32           C
ATOM   1008  O   HIS   128      12.809 -15.537 -31.021  1.00 93.32           O
ATOM   1009  N   PRO   129      13.548 -15.061 -33.054  1.00173.74           N
ATOM   1010  CA  PRO   129      14.665 -15.945 -32.902  1.00173.74           C
ATOM   1011  CD  PRO   129      13.238 -14.796 -34.450  1.00173.74           C
ATOM   1012  CB  PRO   129      15.375 -15.952 -34.253  1.00173.74           C
ATOM   1013  CG  PRO   129      14.244 -15.640 -35.253  1.00173.74           C
ATOM   1014  C   PRO   129      15.415 -15.299 -31.790  1.00173.74           C
ATOM   1015  O   PRO   129      15.310 -14.079 -31.673  1.00173.74           O
ATOM   1016  N   LEU   130      16.215 -16.058 -31.021  1.00245.98           N
ATOM   1017  CA  LEU   130      16.660 -15.611 -29.728  1.00245.98           C
ATOM   1018  CB  LEU   130      17.770 -16.505 -29.166  1.00245.98           C
ATOM   1019  CG  LEU   130      18.263 -16.048 -27.782  1.00245.98           C
ATOM   1020  CD1 LEU   130      17.162 -16.177 -26.718  1.00245.98           C
ATOM   1021  CD2 LEU   130      19.568 -16.759 -27.396  1.00245.98           C
ATOM   1022  C   LEU   130      17.214 -14.238 -29.740  1.00245.98           C
ATOM   1023  O   LEU   130      16.608 -13.335 -29.165  1.00245.98           O
ATOM   1024  N   HIS   131      18.322 -14.018 -30.455  1.00239.55           N
ATOM   1025  CA  HIS   131      18.894 -12.716 -30.503  1.00239.55           C
ATOM   1026  ND1 HIS   131      21.533 -10.526 -30.613  1.00239.55           N
ATOM   1027  CG  HIS   131      20.884 -11.324 -29.698  1.00239.55           C
ATOM   1028  CB  HIS   131      20.350 -12.695 -29.992  1.00239.55           C
ATOM   1029  NE2 HIS   131      21.484  -9.388 -28.702  1.00239.55           N
ATOM   1030  CD2 HIS   131      20.861 -10.612 -28.536  1.00239.55           C
ATOM   1031  CE1 HIS   131      21.872  -9.381 -29.965  1.00239.55           C
ATOM   1032  C   HIS   131      18.883 -12.451 -31.961  1.00239.55           C
ATOM   1033  O   HIS   131      18.267 -13.198 -32.718  1.00239.55           O
ATOM   1034  N   TYR   132      19.485 -11.354 -32.422  1.00173.57           N
ATOM   1035  CA  TYR   132      19.466 -11.248 -33.846  1.00173.57           C
ATOM   1036  CB  TYR   132      20.067  -9.929 -34.363  1.00173.57           C
ATOM   1037  CG  TYR   132      19.826  -9.892 -35.833  1.00173.57           C
ATOM   1038  CD1 TYR   132      18.578  -9.571 -36.312  1.00173.57           C
ATOM   1039  CD2 TYR   132      20.834 -10.169 -36.727  1.00173.57           C
ATOM   1040  CE1 TYR   132      18.331  -9.532 -37.663  1.00173.57           C
ATOM   1041  CE2 TYR   132      20.593 -10.132 -38.081  1.00173.57           C
ATOM   1042  CZ  TYR   132      19.340  -9.815 -38.549  1.00173.57           C
ATOM   1043  OH  TYR   132      19.090  -9.778 -39.936  1.00173.57           O
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ATOM   1044  C   TYR   132      20.307 -12.379 -34.358  1.00173.57           C
ATOM   1045  O   TYR   132      19.885 -13.141 -35.226  1.00173.57           O
ATOM   1046  N   ILE   133      21.528 -12.520 -33.796  1.00122.24           N
ATOM   1047  CA  ILE   133      22.387 -13.611 -34.151  1.00122.24           C
ATOM   1048  CB  ILE   133      23.626 -13.186 -34.896  1.00122.24           C
ATOM   1049  CG2 ILE   133      24.344 -12.090 -34.092  1.00122.24           C
ATOM   1050  CG1 ILE   133      24.490 -14.408 -35.251  1.00122.24           C
ATOM   1051  CD1 ILE   133      25.601 -14.103 -36.256  1.00122.24           C
ATOM   1052  C   ILE   133      22.798 -14.287 -32.881  1.00122.24           C
ATOM   1053  O   ILE   133      23.510 -13.718 -32.054  1.00122.24           O
ATOM   1054  N   LEU   134      22.339 -15.537 -32.681  1.00146.65           N
ATOM   1055  CA  LEU   134      22.733 -16.201 -31.479  1.00146.65           C
ATOM   1056  CB  LEU   134      21.938 -15.699 -30.255  1.00146.65           C
ATOM   1057  CG  LEU   134      22.542 -16.015 -28.867  1.00146.65           C
ATOM   1058  CD1 LEU   134      22.579 -17.513 -28.551  1.00146.65           C
ATOM   1059  CD2 LEU   134      23.907 -15.329 -28.694  1.00146.65           C
ATOM   1060  C   LEU   134      22.438 -17.648 -31.715  1.00146.65           C
ATOM   1061  O   LEU   134      21.524 -17.991 -32.463  1.00146.65           O
ATOM   1062  N   ILE   135      23.233 -18.538 -31.099  1.00118.99           N
ATOM   1063  CA  ILE   135      23.049 -19.953 -31.243  1.00118.99           C
ATOM   1064  CB  ILE   135      24.208 -20.724 -30.690  1.00118.99           C
ATOM   1065  CG2 ILE   135      24.476 -20.204 -29.269  1.00118.99           C
ATOM   1066  CG1 ILE   135      23.994 -22.239 -30.851  1.00118.99           C
ATOM   1067  CD1 ILE   135      25.251 -23.072 -30.606  1.00118.99           C
ATOM   1068  C   ILE   135      21.790 -20.347 -30.538  1.00118.99           C
ATOM   1069  O   ILE   135      21.478 -19.843 -29.463  1.00118.99           O
ATOM   1070  N   MET   136      20.998 -21.244 -31.157  1.00121.97           N
ATOM   1071  CA  MET   136      19.748 -21.616 -30.560  1.00121.97           C
ATOM   1072  CB  MET   136      18.904 -22.567 -31.421  1.00121.97           C
ATOM   1073  CG  MET   136      17.569 -22.916 -30.757  1.00121.97           C
ATOM   1074  SD  MET   136      16.610 -24.212 -31.597  1.00121.97           S
ATOM   1075  CE  MET   136      17.689 -25.555 -31.026  1.00121.97           C
ATOM   1076  C   MET   136      19.967 -22.308 -29.253  1.00121.97           C
ATOM   1077  O   MET   136      19.262 -22.033 -28.283  1.00121.97           O
ATOM   1078  N   SER   137      20.946 -23.230 -29.189  1.00 87.78           N
ATOM   1079  CA  SER   137      21.123 -24.010 -27.998  1.00 87.78           C
ATOM   1080  CB  SER   137      22.104 -25.188 -28.182  1.00 87.78           C
ATOM   1081  OG  SER   137      22.226 -25.917 -26.970  1.00 87.78           O
ATOM   1082  C   SER   137      21.565 -23.170 -26.830  1.00 87.78           C
ATOM   1083  O   SER   137      20.962 -23.266 -25.762  1.00 87.78           O
ATOM   1084  N   PRO   138      22.566 -22.344 -26.946  1.00124.48           N
ATOM   1085  CA  PRO   138      22.940 -21.613 -25.767  1.00124.48           C
ATOM   1086  CD  PRO   138      23.743 -22.698 -27.726  1.00124.48           C
ATOM   1087  CB  PRO   138      24.333 -21.051 -26.038  1.00124.48           C
ATOM   1088  CG  PRO   138      24.949 -22.110 -26.970  1.00124.48           C
ATOM   1089  C   PRO   138      21.920 -20.634 -25.289  1.00124.48           C
ATOM   1090  O   PRO   138      21.944 -20.300 -24.106  1.00124.48           O
ATOM   1091  N   GLY   139      21.028 -20.139 -26.165  1.00 24.85           N
ATOM   1092  CA  GLY   139      20.053 -19.218 -25.668  1.00 24.85           C
ATOM   1093  C   GLY   139      19.213 -19.959 -24.687  1.00 24.85           C
ATOM   1094  O   GLY   139      18.930 -19.475 -23.594  1.00 24.85           O
ATOM   1095  N   LEU   140      18.788 -21.174 -25.068  1.00111.92           N
ATOM   1096  CA  LEU   140      17.957 -21.961 -24.213  1.00111.92           C
ATOM   1097  CB  LEU   140      17.456 -23.228 -24.943  1.00111.92           C
ATOM   1098  CG  LEU   140      16.685 -24.258 -24.091  1.00111.92           C
ATOM   1099  CD1 LEU   140      17.623 -25.095 -23.204  1.00111.92           C
ATOM   1100  CD2 LEU   140      15.555 -23.589 -23.294  1.00111.92           C
ATOM   1101  C   LEU   140      18.714 -22.374 -22.996  1.00111.92           C
ATOM   1102  O   LEU   140      18.250 -22.181 -21.873  1.00111.92           O
ATOM   1103  N   CYS   141      19.914 -22.952 -23.185  1.00127.41           N
ATOM   1104  CA  CYS   141      20.566 -23.500 -22.037  1.00127.41           C
ATOM   1105  CB  CYS   141      21.842 -24.281 -22.391  1.00127.41           C
ATOM   1106  SG  CYS   141      21.486 -25.773 -23.369  1.00127.41           S
ATOM   1107  C   CYS   141      20.936 -22.460 -21.039  1.00127.41           C
ATOM   1108  O   CYS   141      20.367 -22.399 -19.953  1.00127.41           O
ATOM   1109  N   ILE   142      21.888 -21.582 -21.389  1.00151.40           N
ATOM   1110  CA  ILE   142      22.344 -20.679 -20.378  1.00151.40           C
ATOM   1111  CB  ILE   142      23.592 -19.954 -20.791  1.00151.40           C
ATOM   1112  CG2 ILE   142      23.941 -18.929 -19.698  1.00151.40           C
ATOM   1113  CG1 ILE   142      24.717 -20.963 -21.062  1.00151.40           C
ATOM   1114  CD1 ILE   142      25.067 -21.812 -19.842  1.00151.40           C
ATOM   1115  C   ILE   142      21.318 -19.643 -20.075  1.00151.40           C
ATOM   1116  O   ILE   142      20.873 -19.497 -18.937  1.00151.40           O
ATOM   1117  N   PHE   143      20.893 -18.913 -21.120  1.00126.70           N
ATOM   1118  CA  PHE   143      20.058 -17.774 -20.901  1.00126.70           C
ATOM   1119  CB  PHE   143      19.903 -16.914 -22.170  1.00126.70           C
ATOM   1120  CG  PHE   143      19.183 -15.662 -21.800  1.00126.70           C
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ATOM   1121  CD1 PHE   143      17.809 -15.629 -21.744  1.00126.70           C
ATOM   1122  CD2 PHE   143      19.886 -14.513 -21.510  1.00126.70           C
ATOM   1123  CE1 PHE   143      17.149 -14.472 -21.403  1.00126.70           C
ATOM   1124  CE2 PHE   143      19.231 -13.352 -21.169  1.00126.70           C
ATOM   1125  CZ  PHE   143      17.858 -13.331 -21.113  1.00126.70           C
ATOM   1126  C   PHE   143      18.687 -18.137 -20.436  1.00126.70           C
ATOM   1127  O   PHE   143      18.234 -17.666 -19.395  1.00126.70           O
ATOM   1128  N   LEU   144      17.999 -19.011 -21.192  1.00113.57           N
ATOM   1129  CA  LEU   144      16.611 -19.251 -20.926  1.00113.57           C
ATOM   1130  CB  LEU   144      15.958 -20.144 -22.004  1.00113.57           C
ATOM   1131  CG  LEU   144      14.423 -20.339 -21.908  1.00113.57           C
ATOM   1132  CD1 LEU   144      13.980 -21.172 -20.691  1.00113.57           C
ATOM   1133  CD2 LEU   144      13.695 -18.991 -22.010  1.00113.57           C
ATOM   1134  C   LEU   144      16.408 -19.919 -19.611  1.00113.57           C
ATOM   1135  O   LEU   144      15.659 -19.423 -18.771  1.00113.57           O
ATOM   1136  N   VAL   145      17.095 -21.050 -19.376  1.00105.06           N
ATOM   1137  CA  VAL   145      16.793 -21.756 -18.169  1.00105.06           C
ATOM   1138  CB  VAL   145      17.478 -23.084 -18.015  1.00105.06           C
ATOM   1139  CG1 VAL   145      17.179 -23.926 -19.268  1.00105.06           C
ATOM   1140  CG2 VAL   145      18.957 -22.878 -17.664  1.00105.06           C
ATOM   1141  C   VAL   145      17.196 -20.890 -17.033  1.00105.06           C
ATOM   1142  O   VAL   145      16.513 -20.831 -16.014  1.00105.06           O
ATOM   1143  N   SER   146      18.317 -20.169 -17.191  1.00 65.90           N
ATOM   1144  CA  SER   146      18.789 -19.356 -16.114  1.00 65.90           C
ATOM   1145  CB  SER   146      20.034 -18.538 -16.491  1.00 65.90           C
ATOM   1146  OG  SER   146      20.453 -17.749 -15.387  1.00 65.90           O
ATOM   1147  C   SER   146      17.717 -18.381 -15.740  1.00 65.90           C
ATOM   1148  O   SER   146      17.350 -18.271 -14.571  1.00 65.90           O
ATOM   1149  N   ALA   147      17.165 -17.658 -16.731  1.00 24.35           N
ATOM   1150  CA  ALA   147      16.174 -16.659 -16.448  1.00 24.35           C
ATOM   1151  CB  ALA   147      15.724 -15.900 -17.705  1.00 24.35           C
ATOM   1152  C   ALA   147      14.958 -17.307 -15.867  1.00 24.35           C
ATOM   1153  O   ALA   147      14.388 -16.826 -14.890  1.00 24.35           O
ATOM   1154  N   SER   148      14.538 -18.441 -16.452  1.00 26.48           N
ATOM   1155  CA  SER   148      13.345 -19.107 -16.018  1.00 26.48           C
ATOM   1156  CB  SER   148      13.024 -20.341 -16.874  1.00 26.48           C
ATOM   1157  OG  SER   148      12.680 -19.944 -18.194  1.00 26.48           O
ATOM   1158  C   SER   148      13.528 -19.569 -14.609  1.00 26.48           C
ATOM   1159  O   SER   148      12.599 -19.532 -13.805  1.00 26.48           O
ATOM   1160  N   TRP   149      14.759 -19.984 -14.273  1.00 55.70           N
ATOM   1161  CA  TRP   149      15.068 -20.532 -12.989  1.00 55.70           C
ATOM   1162  CB  TRP   149      16.525 -21.013 -12.881  1.00 55.70           C
ATOM   1163  CG  TRP   149      16.796 -22.258 -13.687  1.00 55.70           C
ATOM   1164  CD2 TRP   149      18.097 -22.838 -13.874  1.00 55.70           C
ATOM   1165  CD1 TRP   149      15.918 -23.053 -14.362  1.00 55.70           C
ATOM   1166  NE1 TRP   149      16.588 -24.097 -14.952  1.00 55.70           N
ATOM   1167  CE2 TRP   149      17.930 -23.977 -14.660  1.00 55.70           C
ATOM   1168  CE3 TRP   149      19.328 -22.454 -13.423  1.00 55.70           C
ATOM   1169  CZ2 TRP   149      18.996 -24.757 -15.009  1.00 55.70           C
ATOM   1170  CZ3 TRP   149      20.402 -23.240 -13.781  1.00 55.70           C
ATOM   1171  CH2 TRP   149      20.238 -24.369 -14.557  1.00 55.70           C
ATOM   1172  C   TRP   149      14.834 -19.518 -11.924  1.00 55.70           C
ATOM   1173  O   TRP   149      14.298 -19.860 -10.875  1.00 55.70           O
ATOM   1174  N   ILE   150      15.196 -18.244 -12.160  1.00 86.29           N
ATOM   1175  CA  ILE   150      15.100 -17.264 -11.113  1.00 86.29           C
ATOM   1176  CB  ILE   150      15.576 -15.899 -11.515  1.00 86.29           C
ATOM   1177  CG2 ILE   150      17.062 -16.009 -11.892  1.00 86.29           C
ATOM   1178  CG1 ILE   150      14.683 -15.316 -12.620  1.00 86.29           C
ATOM   1179  CD1 ILE   150      14.900 -13.821 -12.851  1.00 86.29           C
ATOM   1180  C   ILE   150      13.683 -17.116 -10.654  1.00 86.29           C
ATOM   1181  O   ILE   150      13.429 -17.042  -9.454  1.00 86.29           O
ATOM   1182  N   MET   151      12.713 -17.075 -11.586  1.00 61.10           N
ATOM   1183  CA  MET   151      11.349 -16.898 -11.172  1.00 61.10           C
ATOM   1184  CB  MET   151      10.361 -16.892 -12.350  1.00 61.10           C
ATOM   1185  CG  MET   151       8.925 -16.561 -11.941  1.00 61.10           C
ATOM   1186  SD  MET   151       7.738 -16.569 -13.316  1.00 61.10           S
ATOM   1187  CE  MET   151       8.513 -15.183 -14.197  1.00 61.10           C
ATOM   1188  C   MET   151      10.999 -18.067 -10.313  1.00 61.10           C
ATOM   1189  O   MET   151      10.341 -17.935  -9.282  1.00 61.10           O
ATOM   1190  N   ASN   152      11.470 -19.250 -10.733  1.00 66.51           N
ATOM   1191  CA  ASN   152      11.227 -20.491 -10.068  1.00 66.51           C
ATOM   1192  CB  ASN   152      11.855 -21.645 -10.839  1.00 66.51           C
ATOM   1193  CG  ASN   152      11.162 -21.548 -12.177  1.00 66.51           C
ATOM   1194  OD1 ASN   152      11.734 -21.846 -13.224  1.00 66.51           O
ATOM   1195  ND2 ASN   152       9.873 -21.120 -12.126  1.00 66.51           N
ATOM   1196  C   ASN   152      11.864 -20.417  -8.729  1.00 66.51           C
ATOM   1197  O   ASN   152      11.379 -20.996  -7.759  1.00 66.51           O
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ATOM   1198  N   ALA   153      12.979 -19.680  -8.651  1.00 34.35           N
ATOM   1199  CA  ALA   153      13.699 -19.558  -7.433  1.00 34.35           C
ATOM   1200  CB  ALA   153      14.892 -18.593  -7.535  1.00 34.35           C
ATOM   1201  C   ALA   153      12.742 -18.979  -6.460  1.00 34.35           C
ATOM   1202  O   ALA   153      12.657 -19.455  -5.338  1.00 34.35           O
ATOM   1203  N   LEU   154      11.930 -18.002  -6.898  1.00 40.70           N
ATOM   1204  CA  LEU   154      11.036 -17.315  -6.010  1.00 40.70           C
ATOM   1205  CB  LEU   154      10.096 -16.359  -6.762  1.00 40.70           C
ATOM   1206  CG  LEU   154      10.804 -15.241  -7.550  1.00 40.70           C
ATOM   1207  CD1 LEU   154       9.781 -14.346  -8.267  1.00 40.70           C
ATOM   1208  CD2 LEU   154      11.765 -14.434  -6.664  1.00 40.70           C
ATOM   1209  C   LEU   154      10.160 -18.345  -5.375  1.00 40.70           C
ATOM   1210  O   LEU   154       9.888 -18.290  -4.177  1.00 40.70           O
ATOM   1211  N   HIS   155       9.708 -19.326  -6.173  1.00 98.85           N
ATOM   1212  CA  HIS   155       8.864 -20.355  -5.648  1.00 98.85           C
ATOM   1213  ND1 HIS   155       6.173 -20.496  -7.549  1.00 98.85           N
ATOM   1214  CG  HIS   155       7.503 -20.783  -7.757  1.00 98.85           C
ATOM   1215  CB  HIS   155       8.405 -21.366  -6.712  1.00 98.85           C
ATOM   1216  NE2 HIS   155       6.617 -19.956  -9.660  1.00 98.85           N
ATOM   1217  CD2 HIS   155       7.760 -20.446  -9.051  1.00 98.85           C
ATOM   1218  CE1 HIS   155       5.691 -20.005  -8.719  1.00 98.85           C
ATOM   1219  C   HIS   155       9.638 -21.132  -4.631  1.00 98.85           C
ATOM   1220  O   HIS   155       9.100 -21.527  -3.599  1.00 98.85           O
ATOM   1221  N   SER   156      10.921 -21.405  -4.936  1.00 67.16           N
ATOM   1222  CA  SER   156      11.794 -22.192  -4.108  1.00 67.16           C
ATOM   1223  CB  SER   156      12.971 -22.792  -4.902  1.00 67.16           C
ATOM   1224  OG  SER   156      13.763 -21.772  -5.489  1.00 67.16           O
ATOM   1225  C   SER   156      12.353 -21.441  -2.919  1.00 67.16           C
ATOM   1226  O   SER   156      12.879 -22.074  -2.005  1.00 67.16           O
ATOM   1227  N   LEU   157      12.263 -20.095  -2.865  1.00111.09           N
ATOM   1228  CA  LEU   157      12.926 -19.357  -1.817  1.00111.09           C
ATOM   1229  CB  LEU   157      12.881 -17.815  -1.902  1.00111.09           C
ATOM   1230  CG  LEU   157      14.008 -17.138  -2.713  1.00111.09           C
ATOM   1231  CD1 LEU   157      13.854 -17.283  -4.225  1.00111.09           C
ATOM   1232  CD2 LEU   157      14.182 -15.673  -2.290  1.00111.09           C
ATOM   1233  C   LEU   157      12.416 -19.683  -0.456  1.00111.09           C
ATOM   1234  O   LEU   157      13.201 -19.757   0.487  1.00111.09           O
ATOM   1235  N   LEU   158      11.103 -19.905  -0.300  1.00 90.87           N
ATOM   1236  CA  LEU   158      10.576 -20.084   1.022  1.00 90.87           C
ATOM   1237  CB  LEU   158       9.059 -20.315   1.039  1.00 90.87           C
ATOM   1238  CG  LEU   158       8.263 -19.075   0.587  1.00 90.87           C
ATOM   1239  CD1 LEU   158       8.586 -18.704  -0.869  1.00 90.87           C
ATOM   1240  CD2 LEU   158       6.756 -19.256   0.829  1.00 90.87           C
ATOM   1241  C   LEU   158      11.241 -21.245   1.687  1.00 90.87           C
ATOM   1242  O   LEU   158      11.538 -21.191   2.879  1.00 90.87           O
ATOM   1243  N   HIS   159      11.535 -22.313   0.929  1.00 84.37           N
ATOM   1244  CA  HIS   159      12.098 -23.487   1.526  1.00 84.37           C
ATOM   1245  ND1 HIS   159      14.707 -25.552   0.676  1.00 84.37           N
ATOM   1246  CG  HIS   159      13.792 -24.720   0.074  1.00 84.37           C
ATOM   1247  CB  HIS   159      12.363 -24.622   0.519  1.00 84.37           C
ATOM   1248  NE2 HIS   159      15.788 -24.501  -0.956  1.00 84.37           N
ATOM   1249  CD2 HIS   159      14.468 -24.085  -0.922  1.00 84.37           C
ATOM   1250  CE1 HIS   159      15.884 -25.382   0.022  1.00 84.37           C
ATOM   1251  C   HIS   159      13.398 -23.132   2.161  1.00 84.37           C
ATOM   1252  O   HIS   159      13.697 -23.623   3.249  1.00 84.37           O
ATOM   1253  N   THR   160      14.214 -22.276   1.510  1.00 51.54           N
ATOM   1254  CA  THR   160      15.466 -21.968   2.129  1.00 51.54           C
ATOM   1255  CB  THR   160      16.306 -21.000   1.343  1.00 51.54           C
ATOM   1256  OG1 THR   160      15.658 -19.741   1.256  1.00 51.54           O
ATOM   1257  CG2 THR   160      16.535 -21.568  -0.067  1.00 51.54           C
ATOM   1258  C   THR   160      15.178 -21.355   3.465  1.00 51.54           C
ATOM   1259  O   THR   160      15.706 -21.809   4.479  1.00 51.54           O
ATOM   1260  N   LEU   161      14.351 -20.294   3.525  1.00134.39           N
ATOM   1261  CA  LEU   161      14.142 -19.800   4.851  1.00134.39           C
ATOM   1262  CB  LEU   161      13.614 -18.357   4.864  1.00134.39           C
ATOM   1263  CG  LEU   161      14.645 -17.358   4.302  1.00134.39           C
ATOM   1264  CD1 LEU   161      14.872 -17.561   2.797  1.00134.39           C
ATOM   1265  CD2 LEU   161      14.280 -15.910   4.654  1.00134.39           C
ATOM   1266  C   LEU   161      13.229 -20.644   5.709  1.00134.39           C
ATOM   1267  O   LEU   161      13.689 -21.358   6.598  1.00134.39           O
ATOM   1268  N   LEU   162      11.897 -20.550   5.461  1.00159.59           N
ATOM   1269  CA  LEU   162      10.867 -21.178   6.263  1.00159.59           C
ATOM   1270  CB  LEU   162       9.580 -20.333   6.308  1.00159.59           C
ATOM   1271  CG  LEU   162       9.767 -18.992   7.045  1.00159.59           C
ATOM   1272  CD1 LEU   162      10.807 -18.099   6.346  1.00159.59           C
ATOM   1273  CD2 LEU   162       8.423 -18.277   7.251  1.00159.59           C
ATOM   1274  C   LEU   162      10.453 -22.595   5.950  1.00159.59           C
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ATOM   1275  O   LEU   162      10.406 -23.447   6.837  1.00159.59           O
ATOM   1276  N   MET   163      10.154 -22.883   4.666  1.00 91.36           N
ATOM   1277  CA  MET   163       9.486 -24.103   4.290  1.00 91.36           C
ATOM   1278  CB  MET   163       8.847 -24.078   2.887  1.00 91.36           C
ATOM   1279  CG  MET   163       7.724 -23.061   2.694  1.00 91.36           C
ATOM   1280  SD  MET   163       6.736 -23.330   1.190  1.00 91.36           S
ATOM   1281  CE  MET   163       8.127 -23.182   0.032  1.00 91.36           C
ATOM   1282  C   MET   163      10.395 -25.281   4.282  1.00 91.36           C
ATOM   1283  O   MET   163      11.607 -25.177   4.465  1.00 91.36           O
ATOM   1284  N   ASN   164       9.779 -26.471   4.113  1.00108.11           N
ATOM   1285  CA  ASN   164      10.571 -27.650   3.981  1.00108.11           C
ATOM   1286  CB  ASN   164      11.629 -27.557   2.862  1.00108.11           C
ATOM   1287  CG  ASN   164      10.939 -27.322   1.527  1.00108.11           C
ATOM   1288  OD1 ASN   164       9.968 -26.572   1.446  1.00108.11           O
ATOM   1289  ND2 ASN   164      11.445 -27.987   0.454  1.00108.11           N
ATOM   1290  C   ASN   164      11.330 -27.794   5.246  1.00108.11           C
ATOM   1291  O   ASN   164      11.010 -27.172   6.258  1.00108.11           O
ATOM   1292  N   SER   165      12.350 -28.668   5.226  1.00 68.96           N
ATOM   1293  CA  SER   165      13.133 -28.781   6.408  1.00 68.96           C
ATOM   1294  CB  SER   165      12.516 -29.724   7.456  1.00 68.96           C
ATOM   1295  OG  SER   165      12.363 -31.026   6.913  1.00 68.96           O
ATOM   1296  C   SER   165      14.493 -29.289   6.064  1.00 68.96           C
ATOM   1297  O   SER   165      14.709 -29.954   5.052  1.00 68.96           O
ATOM   1298  N   LEU   166      15.452 -28.891   6.915  1.00176.00           N
ATOM   1299  CA  LEU   166      16.829 -29.277   6.957  1.00176.00           C
ATOM   1300  CB  LEU   166      17.628 -28.389   7.927  1.00176.00           C
ATOM   1301  CG  LEU   166      19.093 -28.815   8.129  1.00176.00           C
ATOM   1302  CD1 LEU   166      19.886 -28.718   6.818  1.00176.00           C
ATOM   1303  CD2 LEU   166      19.744 -28.037   9.287  1.00176.00           C
ATOM   1304  C   LEU   166      16.875 -30.673   7.484  1.00176.00           C
ATOM   1305  O   LEU   166      17.845 -31.399   7.269  1.00176.00           O
ATOM   1306  N   SER   167      15.806 -31.050   8.215  1.00130.20           N
ATOM   1307  CA  SER   167      15.691 -32.268   8.965  1.00130.20           C
ATOM   1308  CB  SER   167      14.244 -32.635   9.338  1.00130.20           C
ATOM   1309  OG  SER   167      13.521 -33.005   8.174  1.00130.20           O
ATOM   1310  C   SER   167      16.279 -33.421   8.231  1.00130.20           C
ATOM   1311  O   SER   167      16.306 -33.474   7.003  1.00130.20           O
ATOM   1312  N   PHE   168      16.805 -34.366   9.033  1.00196.31           N
ATOM   1313  CA  PHE   168      17.511 -35.530   8.600  1.00196.31           C
ATOM   1314  CB  PHE   168      18.396 -36.100   9.719  1.00196.31           C
ATOM   1315  CG  PHE   168      17.465 -36.671  10.736  1.00196.31           C
ATOM   1316  CD1 PHE   168      16.831 -35.850  11.638  1.00196.31           C
ATOM   1317  CD2 PHE   168      17.198 -38.023  10.770  1.00196.31           C
ATOM   1318  CE1 PHE   168      15.963 -36.367  12.571  1.00196.31           C
ATOM   1319  CE2 PHE   168      16.332 -38.546  11.701  1.00196.31           C
ATOM   1320  CZ  PHE   168      15.712 -37.718  12.605  1.00196.31           C
ATOM   1321  C   PHE   168      16.534 -36.610   8.269  1.00196.31           C
ATOM   1322  O   PHE   168      15.412 -36.643   8.772  1.00196.31           O
ATOM   1323  N   CYS   169      16.971 -37.502   7.363  1.00137.48           N
ATOM   1324  CA  CYS   169      16.306 -38.703   6.957  1.00137.48           C
ATOM   1325  CB  CYS   169      15.151 -38.477   5.966  1.00137.48           C
ATOM   1326  SG  CYS   169      14.198 -39.983   5.598  1.00137.48           S
ATOM   1327  C   CYS   169      17.403 -39.417   6.250  1.00137.48           C
ATOM   1328  O   CYS   169      18.566 -39.126   6.517  1.00137.48           O
ATOM   1329  N   ALA   170      17.105 -40.406   5.384  1.00112.90           N
ATOM   1330  CA  ALA   170      18.232 -40.907   4.658  1.00112.90           C
ATOM   1331  CB  ALA   170      17.864 -42.024   3.669  1.00112.90           C
ATOM   1332  C   ALA   170      18.692 -39.717   3.858  1.00112.90           C
ATOM   1333  O   ALA   170      19.846 -39.305   3.941  1.00112.90           O
ATOM   1334  N   ASN   171      17.740 -39.119   3.108  1.00177.44           N
ATOM   1335  CA  ASN   171      17.787 -37.881   2.388  1.00177.44           C
ATOM   1336  CB  ASN   171      18.383 -37.995   0.978  1.00177.44           C
ATOM   1337  CG  ASN   171      19.873 -38.258   1.123  1.00177.44           C
ATOM   1338  OD1 ASN   171      20.389 -39.264   0.639  1.00177.44           O
ATOM   1339  ND2 ASN   171      20.586 -37.333   1.818  1.00177.44           N
ATOM   1340  C   ASN   171      16.337 -37.640   2.224  1.00177.44           C
ATOM   1341  O   ASN   171      15.867 -37.530   1.098  1.00177.44           O
ATOM   1342  N   HIS   172      15.593 -37.550   3.343  1.00215.80           N
ATOM   1343  CA  HIS   172      14.159 -37.520   3.263  1.00215.80           C
ATOM   1344  ND1 HIS   172      12.310 -34.912   4.345  1.00215.80           N
ATOM   1345  CG  HIS   172      13.427 -35.111   3.563  1.00215.80           C
ATOM   1346  CB  HIS   172      13.566 -36.259   2.608  1.00215.80           C
ATOM   1347  NE2 HIS   172      13.730 -33.275   4.838  1.00215.80           N
ATOM   1348  CD2 HIS   172      14.284 -34.101   3.875  1.00215.80           C
ATOM   1349  CE1 HIS   172      12.545 -33.802   5.088  1.00215.80           C
ATOM   1350  C   HIS   172      13.803 -38.705   2.434  1.00215.80           C
ATOM   1351  O   HIS   172      12.921 -38.644   1.580  1.00215.80           O
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ATOM   1352  N   GLU   173      14.504 -39.827   2.674  1.00247.98           N
ATOM   1353  CA  GLU   173      14.327 -40.963   1.827  1.00247.98           C
ATOM   1354  CB  GLU   173      15.463 -41.990   1.953  1.00247.98           C
ATOM   1355  CG  GLU   173      15.561 -42.957   0.771  1.00247.98           C
ATOM   1356  CD  GLU   173      16.319 -42.234  -0.334  1.00247.98           C
ATOM   1357  OE1 GLU   173      16.529 -41.000  -0.187  1.00247.98           O
ATOM   1358  OE2 GLU   173      16.704 -42.900  -1.333  1.00247.98           O
ATOM   1359  C   GLU   173      13.069 -41.647   2.222  1.00247.98           C
ATOM   1360  O   GLU   173      13.010 -42.312   3.252  1.00247.98           O
ATOM   1361  N   ILE   174      12.020 -41.475   1.402  1.00176.42           N
ATOM   1362  CA  ILE   174      10.756 -42.118   1.606  1.00176.42           C
ATOM   1363  CB  ILE   174       9.695 -41.258   2.225  1.00176.42           C
ATOM   1364  CG2 ILE   174      10.249 -40.741   3.561  1.00176.42           C
ATOM   1365  CG1 ILE   174       9.247 -40.151   1.258  1.00176.42           C
ATOM   1366  CD1 ILE   174      10.380 -39.263   0.764  1.00176.42           C
ATOM   1367  C   ILE   174      10.312 -42.379   0.219  1.00176.42           C
ATOM   1368  O   ILE   174      11.111 -42.212  -0.701  1.00176.42           O
ATOM   1369  N   PRO   175       9.109 -42.822   0.002  1.00189.06           N
ATOM   1370  CA  PRO   175       8.711 -42.953  -1.358  1.00189.06           C
ATOM   1371  CD  PRO   175       8.432 -43.771   0.867  1.00189.06           C
ATOM   1372  CB  PRO   175       7.355 -43.651  -1.329  1.00189.06           C
ATOM   1373  CG  PRO   175       7.453 -44.526  -0.059  1.00189.06           C
ATOM   1374  C   PRO   175       8.754 -41.582  -1.935  1.00189.06           C
ATOM   1375  O   PRO   175       7.958 -40.731  -1.540  1.00189.06           O
ATOM   1376  N   HIS   176       9.699 -41.364  -2.861  1.00275.87           N
ATOM   1377  CA  HIS   176       9.881 -40.103  -3.501  1.00275.87           C
ATOM   1378  ND1 HIS   176      10.351 -36.605  -3.505  1.00275.87           N
ATOM   1379  CG  HIS   176       9.440 -37.623  -3.338  1.00275.87           C
ATOM   1380  CB  HIS   176       9.705 -38.892  -2.583  1.00275.87           C
ATOM   1381  NE2 HIS   176       8.456 -35.926  -4.454  1.00275.87           N
ATOM   1382  CD2 HIS   176       8.290 -37.192  -3.927  1.00275.87           C
ATOM   1383  CE1 HIS   176       9.708 -35.614  -4.174  1.00275.87           C
ATOM   1384  C   HIS   176      11.289 -40.133  -3.971  1.00275.87           C
ATOM   1385  O   HIS   176      12.007 -41.098  -3.714  1.00275.87           O
ATOM   1386  N   PHE   177      11.730 -39.086  -4.684  1.00165.94           N
ATOM   1387  CA  PHE   177      13.040 -39.180  -5.245  1.00165.94           C
ATOM   1388  CB  PHE   177      13.387 -37.938  -6.064  1.00165.94           C
ATOM   1389  CG  PHE   177      12.188 -37.582  -6.879  1.00165.94           C
ATOM   1390  CD1 PHE   177      11.770 -38.303  -7.977  1.00165.94           C
ATOM   1391  CD2 PHE   177      11.436 -36.504  -6.481  1.00165.94           C
ATOM   1392  CE1 PHE   177      10.637 -37.912  -8.663  1.00165.94           C
ATOM   1393  CE2 PHE   177      10.309 -36.110  -7.160  1.00165.94           C
ATOM   1394  CZ  PHE   177       9.906 -36.817  -8.265  1.00165.94           C
ATOM   1395  C   PHE   177      14.057 -39.269  -4.144  1.00165.94           C
ATOM   1396  O   PHE   177      14.735 -40.284  -4.002  1.00165.94           O
ATOM   1397  N   PHE   178      14.111 -38.221  -3.291  1.00190.63           N
ATOM   1398  CA  PHE   178      15.065 -38.062  -2.222  1.00190.63           C
ATOM   1399  CB  PHE   178      16.459 -37.573  -2.641  1.00190.63           C
ATOM   1400  CG  PHE   178      17.304 -38.781  -2.855  1.00190.63           C
ATOM   1401  CD1 PHE   178      17.335 -39.460  -4.051  1.00190.63           C
ATOM   1402  CD2 PHE   178      18.085 -39.231  -1.815  1.00190.63           C
ATOM   1403  CE1 PHE   178      18.122 -40.578  -4.192  1.00190.63           C
ATOM   1404  CE2 PHE   178      18.876 -40.345  -1.952  1.00190.63           C
ATOM   1405  CZ  PHE   178      18.894 -41.022  -3.146  1.00190.63           C
ATOM   1406  C   PHE   178      14.505 -37.109  -1.219  1.00190.63           C
ATOM   1407  O   PHE   178      13.456 -37.416  -0.656  1.00190.63           O
ATOM   1408  N   CYS   179      15.229 -35.990  -0.903  1.00159.87           N
ATOM   1409  CA  CYS   179      14.707 -35.013   0.029  1.00159.87           C
ATOM   1410  CB  CYS   179      15.509 -33.683   0.135  1.00159.87           C
ATOM   1411  SG  CYS   179      14.640 -32.375   1.082  1.00159.87           S
ATOM   1412  C   CYS   179      13.352 -34.709  -0.504  1.00159.87           C
ATOM   1413  O   CYS   179      13.177 -34.076  -1.540  1.00159.87           O
ATOM   1414  N   ASP   180      12.354 -35.219   0.224  1.00137.76           N
ATOM   1415  CA  ASP   180      10.994 -35.280  -0.193  1.00137.76           C
ATOM   1416  CB  ASP   180      10.247 -36.327   0.659  1.00137.76           C
ATOM   1417  CG  ASP   180       8.842 -36.653   0.166  1.00137.76           C
ATOM   1418  OD1 ASP   180       8.518 -36.422  -1.027  1.00137.76           O
ATOM   1419  OD2 ASP   180       8.059 -37.161   1.012  1.00137.76           O
ATOM   1420  C   ASP   180      10.298 -33.981  -0.003  1.00137.76           C
ATOM   1421  O   ASP   180      10.766 -33.064   0.670  1.00137.76           O
ATOM   1422  N   ILE   181       9.120 -33.920  -0.643  1.00145.15           N
ATOM   1423  CA  ILE   181       8.158 -32.876  -0.553  1.00145.15           C
ATOM   1424  CB  ILE   181       6.845 -33.276  -1.150  1.00145.15           C
ATOM   1425  CG2 ILE   181       7.048 -33.506  -2.658  1.00145.15           C
ATOM   1426  CG1 ILE   181       6.306 -34.500  -0.386  1.00145.15           C
ATOM   1427  CD1 ILE   181       4.879 -34.904  -0.753  1.00145.15           C
ATOM   1428  C   ILE   181       7.943 -32.653   0.901  1.00145.15           C
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ATOM   1429  O   ILE   181       8.210 -33.530   1.720  1.00145.15           O
ATOM   1430  N   ASN   182       7.485 -31.441   1.253  1.00 86.48           N
ATOM   1431  CA  ASN   182       7.329 -31.058   2.621  1.00 86.48           C
ATOM   1432  CB  ASN   182       6.661 -29.686   2.758  1.00 86.48           C
ATOM   1433  CG  ASN   182       7.662 -28.742   2.118  1.00 86.48           C
ATOM   1434  OD1 ASN   182       8.866 -28.975   2.202  1.00 86.48           O
ATOM   1435  ND2 ASN   182       7.167 -27.664   1.452  1.00 86.48           N
ATOM   1436  C   ASN   182       6.545 -32.089   3.362  1.00 86.48           C
ATOM   1437  O   ASN   182       5.477 -32.553   2.962  1.00 86.48           O
ATOM   1438  N   PRO   183       7.163 -32.481   4.440  1.00115.13           N
ATOM   1439  CA  PRO   183       6.611 -33.492   5.299  1.00115.13           C
ATOM   1440  CD  PRO   183       8.614 -32.458   4.502  1.00115.13           C
ATOM   1441  CB  PRO   183       7.777 -34.031   6.134  1.00115.13           C
ATOM   1442  CG  PRO   183       8.935 -33.049   5.882  1.00115.13           C
ATOM   1443  C   PRO   183       5.430 -33.104   6.122  1.00115.13           C
ATOM   1444  O   PRO   183       4.661 -33.988   6.495  1.00115.13           O
ATOM   1445  N   LEU   184       5.249 -31.813   6.435  1.00 63.45           N
ATOM   1446  CA  LEU   184       4.161 -31.510   7.310  1.00 63.45           C
ATOM   1447  CB  LEU   184       4.589 -30.757   8.581  1.00 63.45           C
ATOM   1448  CG  LEU   184       5.565 -31.565   9.462  1.00 63.45           C
ATOM   1449  CD1 LEU   184       5.934 -30.806  10.746  1.00 63.45           C
ATOM   1450  CD2 LEU   184       5.034 -32.980   9.739  1.00 63.45           C
ATOM   1451  C   LEU   184       3.184 -30.665   6.575  1.00 63.45           C
ATOM   1452  O   LEU   184       3.499 -30.050   5.559  1.00 63.45           O
ATOM   1453  N   LEU   185       1.931 -30.672   7.050  1.00 80.97           N
ATOM   1454  CA  LEU   185       0.934 -29.870   6.423  1.00 80.97           C
ATOM   1455  CB  LEU   185      -0.457 -30.174   6.999  1.00 80.97           C
ATOM   1456  CG  LEU   185      -0.888 -31.629   6.733  1.00 80.97           C
ATOM   1457  CD1 LEU   185      -2.370 -31.847   7.073  1.00 80.97           C
ATOM   1458  CD2 LEU   185      -0.524 -32.075   5.307  1.00 80.97           C
ATOM   1459  C   LEU   185       1.292 -28.434   6.653  1.00 80.97           C
ATOM   1460  O   LEU   185       1.313 -27.624   5.727  1.00 80.97           O
ATOM   1461  N   SER   186       1.636 -28.101   7.912  1.00184.68           N
ATOM   1462  CA  SER   186       1.966 -26.752   8.266  1.00184.68           C
ATOM   1463  CB  SER   186       3.254 -26.217   7.619  1.00184.68           C
ATOM   1464  OG  SER   186       4.375 -26.968   8.061  1.00184.68           O
ATOM   1465  C   SER   186       0.825 -25.912   7.810  1.00184.68           C
ATOM   1466  O   SER   186       1.014 -24.771   7.390  1.00184.68           O
ATOM   1467  N   LEU   187      -0.393 -26.489   7.855  1.00264.73           N
ATOM   1468  CA  LEU   187      -1.561 -25.753   7.479  1.00264.73           C
ATOM   1469  CB  LEU   187      -2.805 -26.602   7.137  1.00264.73           C
ATOM   1470  CG  LEU   187      -2.836 -27.168   5.702  1.00264.73           C
ATOM   1471  CD1 LEU   187      -3.030 -26.040   4.679  1.00264.73           C
ATOM   1472  CD2 LEU   187      -1.608 -28.020   5.376  1.00264.73           C
ATOM   1473  C   LEU   187      -1.930 -24.865   8.609  1.00264.73           C
ATOM   1474  O   LEU   187      -1.813 -25.222   9.781  1.00264.73           O
ATOM   1475  N   SER   188      -2.373 -23.653   8.253  1.00209.70           N
ATOM   1476  CA  SER   188      -2.794 -22.688   9.212  1.00209.70           C
ATOM   1477  CB  SER   188      -1.637 -21.906   9.861  1.00209.70           C
ATOM   1478  OG  SER   188      -0.806 -22.781  10.610  1.00209.70           O
ATOM   1479  C   SER   188      -3.581 -21.714   8.417  1.00209.70           C
ATOM   1480  O   SER   188      -3.835 -21.928   7.233  1.00209.70           O
ATOM   1481  N   CYS   189      -4.005 -20.615   9.054  1.00133.23           N
ATOM   1482  CA  CYS   189      -4.703 -19.628   8.299  1.00133.23           C
ATOM   1483  CB  CYS   189      -5.108 -18.409   9.145  1.00133.23           C
ATOM   1484  SG  CYS   189      -6.001 -17.151   8.184  1.00133.23           S
ATOM   1485  C   CYS   189      -3.703 -19.182   7.294  1.00133.23           C
ATOM   1486  O   CYS   189      -4.026 -18.878   6.145  1.00133.23           O
ATOM   1487  N   THR   190      -2.430 -19.163   7.729  1.00288.36           N
ATOM   1488  CA  THR   190      -1.352 -18.717   6.913  1.00288.36           C
ATOM   1489  CB  THR   190      -1.075 -17.247   7.114  1.00288.36           C
ATOM   1490  OG1 THR   190      -0.001 -16.819   6.291  1.00288.36           O
ATOM   1491  CG2 THR   190      -0.825 -16.935   8.601  1.00288.36           C
ATOM   1492  C   THR   190      -0.170 -19.551   7.263  1.00288.36           C
ATOM   1493  O   THR   190      -0.226 -20.777   7.172  1.00288.36           O
ATOM   1494  N   ASP   191       0.942 -18.904   7.655  1.00204.38           N
ATOM   1495  CA  ASP   191       2.123 -19.630   7.973  1.00204.38           C
ATOM   1496  CB  ASP   191       1.888 -20.833   8.908  1.00204.38           C
ATOM   1497  CG  ASP   191       1.735 -20.251  10.302  1.00204.38           C
ATOM   1498  OD1 ASP   191       2.454 -19.258  10.597  1.00204.38           O
ATOM   1499  OD2 ASP   191       0.910 -20.783  11.090  1.00204.38           O
ATOM   1500  C   ASP   191       2.713 -20.038   6.673  1.00204.38           C
ATOM   1501  O   ASP   191       2.260 -19.595   5.620  1.00204.38           O
ATOM   1502  N   PRO   192       3.726 -20.843   6.702  1.00188.91           N
ATOM   1503  CA  PRO   192       4.363 -21.155   5.460  1.00188.91           C
ATOM   1504  CD  PRO   192       4.694 -20.791   7.791  1.00188.91           C
ATOM   1505  CB  PRO   192       5.690 -21.815   5.825  1.00188.91           C
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ATOM   1506  CG  PRO   192       6.052 -21.152   7.165  1.00188.91           C
ATOM   1507  C   PRO   192       3.570 -21.905   4.444  1.00188.91           C
ATOM   1508  O   PRO   192       3.936 -21.803   3.274  1.00188.91           O
ATOM   1509  N   PHE   193       2.488 -22.621   4.819  1.00226.41           N
ATOM   1510  CA  PHE   193       1.829 -23.414   3.818  1.00226.41           C
ATOM   1511  CB  PHE   193       1.147 -22.614   2.692  1.00226.41           C
ATOM   1512  CG  PHE   193      -0.193 -22.160   3.157  1.00226.41           C
ATOM   1513  CD1 PHE   193      -1.255 -23.035   3.116  1.00226.41           C
ATOM   1514  CD2 PHE   193      -0.397 -20.880   3.615  1.00226.41           C
ATOM   1515  CE1 PHE   193      -2.504 -22.643   3.532  1.00226.41           C
ATOM   1516  CE2 PHE   193      -1.644 -20.481   4.033  1.00226.41           C
ATOM   1517  CZ  PHE   193      -2.697 -21.364   3.992  1.00226.41           C
ATOM   1518  C   PHE   193       2.848 -24.304   3.185  1.00226.41           C
ATOM   1519  O   PHE   193       2.955 -24.394   1.965  1.00226.41           O
ATOM   1520  N   THR   194       3.637 -24.994   4.018  1.00141.03           N
ATOM   1521  CA  THR   194       4.665 -25.852   3.518  1.00141.03           C
ATOM   1522  CB  THR   194       5.436 -26.505   4.626  1.00141.03           C
ATOM   1523  OG1 THR   194       6.601 -27.137   4.123  1.00141.03           O
ATOM   1524  CG2 THR   194       4.526 -27.528   5.312  1.00141.03           C
ATOM   1525  C   THR   194       3.985 -26.901   2.696  1.00141.03           C
ATOM   1526  O   THR   194       4.528 -27.398   1.710  1.00141.03           O
ATOM   1527  N   ASN   195       2.736 -27.217   3.072  1.00107.78           N
ATOM   1528  CA  ASN   195       1.932 -28.224   2.448  1.00107.78           C
ATOM   1529  CB  ASN   195       0.508 -28.274   3.027  1.00107.78           C
ATOM   1530  CG  ASN   195      -0.233 -29.445   2.399  1.00107.78           C
ATOM   1531  OD1 ASN   195      -0.028 -30.599   2.772  1.00107.78           O
ATOM   1532  ND2 ASN   195      -1.127 -29.137   1.422  1.00107.78           N
ATOM   1533  C   ASN   195       1.819 -27.894   0.992  1.00107.78           C
ATOM   1534  O   ASN   195       1.573 -28.773   0.172  1.00107.78           O
ATOM   1535  N   GLU   196       2.013 -26.613   0.631  1.00105.84           N
ATOM   1536  CA  GLU   196       1.835 -26.125  -0.708  1.00105.84           C
ATOM   1537  CB  GLU   196       2.216 -24.635  -0.869  1.00105.84           C
ATOM   1538  CG  GLU   196       1.334 -23.643  -0.100  1.00105.84           C
ATOM   1539  CD  GLU   196      -0.119 -23.861  -0.494  1.00105.84           C
ATOM   1540  OE1 GLU   196      -0.684 -24.914  -0.099  1.00105.84           O
ATOM   1541  OE2 GLU   196      -0.682 -22.980  -1.197  1.00105.84           O
ATOM   1542  C   GLU   196       2.684 -26.879  -1.689  1.00105.84           C
ATOM   1543  O   GLU   196       2.266 -27.046  -2.830  1.00105.84           O
ATOM   1544  N   LEU   197       3.889 -27.353  -1.316  1.00 62.85           N
ATOM   1545  CA  LEU   197       4.719 -27.960  -2.324  1.00 62.85           C
ATOM   1546  CB  LEU   197       6.092 -28.437  -1.827  1.00 62.85           C
ATOM   1547  CG  LEU   197       6.916 -29.061  -2.969  1.00 62.85           C
ATOM   1548  CD1 LEU   197       7.155 -28.041  -4.092  1.00 62.85           C
ATOM   1549  CD2 LEU   197       8.223 -29.684  -2.455  1.00 62.85           C
ATOM   1550  C   LEU   197       4.024 -29.138  -2.929  1.00 62.85           C
ATOM   1551  O   LEU   197       4.096 -29.346  -4.139  1.00 62.85           O
ATOM   1552  N   VAL   198       3.332 -29.955  -2.121  1.00113.52           N
ATOM   1553  CA  VAL   198       2.672 -31.063  -2.737  1.00113.52           C
ATOM   1554  CB  VAL   198       1.977 -31.967  -1.754  1.00113.52           C
ATOM   1555  CG1 VAL   198       3.039 -32.609  -0.853  1.00113.52           C
ATOM   1556  CG2 VAL   198       0.923 -31.172  -0.971  1.00113.52           C
ATOM   1557  C   VAL   198       1.648 -30.532  -3.692  1.00113.52           C
ATOM   1558  O   VAL   198       1.532 -31.017  -4.814  1.00113.52           O
ATOM   1559  N   ILE   199       0.844 -29.538  -3.272  1.00 77.94           N
ATOM   1560  CA  ILE   199      -0.201 -29.089  -4.143  1.00 77.94           C
ATOM   1561  CB  ILE   199      -1.257 -28.314  -3.402  1.00 77.94           C
ATOM   1562  CG2 ILE   199      -1.861 -29.258  -2.354  1.00 77.94           C
ATOM   1563  CG1 ILE   199      -0.692 -27.028  -2.777  1.00 77.94           C
ATOM   1564  CD1 ILE   199      -1.780 -26.045  -2.353  1.00 77.94           C
ATOM   1565  C   ILE   199       0.242 -28.254  -5.317  1.00 77.94           C
ATOM   1566  O   ILE   199      -0.029 -28.605  -6.463  1.00 77.94           O
ATOM   1567  N   PHE   200       0.940 -27.126  -5.068  1.00166.11           N
ATOM   1568  CA  PHE   200       1.197 -26.192  -6.128  1.00166.11           C
ATOM   1569  CB  PHE   200       1.702 -24.831  -5.615  1.00166.11           C
ATOM   1570  CG  PHE   200       1.713 -23.900  -6.778  1.00166.11           C
ATOM   1571  CD1 PHE   200       0.546 -23.298  -7.189  1.00166.11           C
ATOM   1572  CD2 PHE   200       2.877 -23.624  -7.459  1.00166.11           C
ATOM   1573  CE1 PHE   200       0.534 -22.437  -8.258  1.00166.11           C
ATOM   1574  CE2 PHE   200       2.873 -22.762  -8.531  1.00166.11           C
ATOM   1575  CZ  PHE   200       1.701 -22.167  -8.932  1.00166.11           C
ATOM   1576  C   PHE   200       2.173 -26.676  -7.151  1.00166.11           C
ATOM   1577  O   PHE   200       1.824 -26.818  -8.321  1.00166.11           O
ATOM   1578  N   ILE   201       3.417 -26.979  -6.735  1.00139.95           N
ATOM   1579  CA  ILE   201       4.426 -27.261  -7.708  1.00139.95           C
ATOM   1580  CB  ILE   201       5.795 -27.215  -7.117  1.00139.95           C
ATOM   1581  CG2 ILE   201       6.752 -27.187  -8.307  1.00139.95           C
ATOM   1582  CG1 ILE   201       5.970 -25.921  -6.305  1.00139.95           C
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ATOM   1583  CD1 ILE   201       5.844 -24.657  -7.154  1.00139.95           C
ATOM   1584  C   ILE   201       4.181 -28.578  -8.377  1.00139.95           C
ATOM   1585  O   ILE   201       4.256 -28.668  -9.601  1.00139.95           O
ATOM   1586  N   THR   202       3.925 -29.659  -7.609  1.00158.44           N
ATOM   1587  CA  THR   202       3.721 -30.894  -8.313  1.00158.44           C
ATOM   1588  CB  THR   202       3.968 -32.141  -7.510  1.00158.44           C
ATOM   1589  OG1 THR   202       2.998 -32.289  -6.491  1.00158.44           O
ATOM   1590  CG2 THR   202       5.375 -32.061  -6.896  1.00158.44           C
ATOM   1591  C   THR   202       2.361 -30.999  -8.943  1.00158.44           C
ATOM   1592  O   THR   202       2.245 -31.253 -10.140  1.00158.44           O
ATOM   1593  N   GLY   203       1.284 -30.794  -8.158  1.00116.52           N
ATOM   1594  CA  GLY   203      -0.031 -31.011  -8.699  1.00116.52           C
ATOM   1595  C   GLY   203      -0.363 -29.998  -9.746  1.00116.52           C
ATOM   1596  O   GLY   203      -0.800 -30.339 -10.844  1.00116.52           O
ATOM   1597  N   GLY   204      -0.165 -28.710  -9.415  1.00108.86           N
ATOM   1598  CA  GLY   204      -0.526 -27.652 -10.310  1.00108.86           C
ATOM   1599  C   GLY   204       0.349 -27.657 -11.518  1.00108.86           C
ATOM   1600  O   GLY   204      -0.121 -27.476 -12.639  1.00108.86           O
ATOM   1601  N   LEU   205       1.663 -27.850 -11.330  1.00119.29           N
ATOM   1602  CA  LEU   205       2.513 -27.736 -12.477  1.00119.29           C
ATOM   1603  CB  LEU   205       4.013 -27.692 -12.153  1.00119.29           C
ATOM   1604  CG  LEU   205       4.400 -26.339 -11.534  1.00119.29           C
ATOM   1605  CD1 LEU   205       4.197 -25.198 -12.537  1.00119.29           C
ATOM   1606  CD2 LEU   205       3.605 -26.068 -10.259  1.00119.29           C
ATOM   1607  C   LEU   205       2.250 -28.813 -13.473  1.00119.29           C
ATOM   1608  O   LEU   205       2.267 -28.554 -14.675  1.00119.29           O
ATOM   1609  N   THR   206       2.065 -30.061 -13.007  1.00160.69           N
ATOM   1610  CA  THR   206       1.846 -31.171 -13.887  1.00160.69           C
ATOM   1611  CB  THR   206       2.020 -32.481 -13.177  1.00160.69           C
ATOM   1612  OG1 THR   206       1.028 -32.626 -12.170  1.00160.69           O
ATOM   1613  CG2 THR   206       3.416 -32.508 -12.534  1.00160.69           C
ATOM   1614  C   THR   206       0.479 -31.203 -14.493  1.00160.69           C
ATOM   1615  O   THR   206       0.343 -31.280 -15.710  1.00160.69           O
ATOM   1616  N   GLY   207      -0.592 -31.063 -13.689  1.00 95.95           N
ATOM   1617  CA  GLY   207      -1.826 -31.446 -14.310  1.00 95.95           C
ATOM   1618  C   GLY   207      -2.891 -30.419 -14.220  1.00 95.95           C
ATOM   1619  O   GLY   207      -3.460 -30.044 -15.245  1.00 95.95           O
ATOM   1620  N   LEU   208      -3.208 -29.957 -12.997  1.00 96.45           N
ATOM   1621  CA  LEU   208      -4.353 -29.113 -12.859  1.00 96.45           C
ATOM   1622  CB  LEU   208      -4.563 -28.666 -11.393  1.00 96.45           C
ATOM   1623  CG  LEU   208      -5.890 -27.936 -11.055  1.00 96.45           C
ATOM   1624  CD1 LEU   208      -5.930 -27.566  -9.562  1.00 96.45           C
ATOM   1625  CD2 LEU   208      -6.163 -26.705 -11.932  1.00 96.45           C
ATOM   1626  C   LEU   208      -4.172 -27.905 -13.714  1.00 96.45           C
ATOM   1627  O   LEU   208      -5.021 -27.619 -14.555  1.00 96.45           O
ATOM   1628  N   ILE   209      -3.068 -27.160 -13.552  1.00 74.29           N
ATOM   1629  CA  ILE   209      -3.016 -25.997 -14.382  1.00 74.29           C
ATOM   1630  CB  ILE   209      -1.938 -25.034 -13.969  1.00 74.29           C
ATOM   1631  CG2 ILE   209      -1.835 -23.943 -15.049  1.00 74.29           C
ATOM   1632  CG1 ILE   209      -2.202 -24.489 -12.557  1.00 74.29           C
ATOM   1633  CD1 ILE   209      -1.015 -23.725 -11.971  1.00 74.29           C
ATOM   1634  C   ILE   209      -2.739 -26.337 -15.814  1.00 74.29           C
ATOM   1635  O   ILE   209      -3.546 -26.071 -16.702  1.00 74.29           O
ATOM   1636  N   CYS   210      -1.586 -26.984 -16.058  1.00 95.64           N
ATOM   1637  CA  CYS   210      -1.100 -27.168 -17.397  1.00 95.64           C
ATOM   1638  CB  CYS   210       0.373 -27.611 -17.433  1.00 95.64           C
ATOM   1639  SG  CYS   210       1.004 -27.814 -19.126  1.00 95.64           S
ATOM   1640  C   CYS   210      -1.871 -28.146 -18.217  1.00 95.64           C
ATOM   1641  O   CYS   210      -2.242 -27.845 -19.352  1.00 95.64           O
ATOM   1642  N   VAL   211      -2.149 -29.339 -17.661  1.00 48.01           N
ATOM   1643  CA  VAL   211      -2.731 -30.370 -18.471  1.00 48.01           C
ATOM   1644  CB  VAL   211      -3.058 -31.623 -17.709  1.00 48.01           C
ATOM   1645  CG1 VAL   211      -3.826 -32.573 -18.644  1.00 48.01           C
ATOM   1646  CG2 VAL   211      -1.765 -32.237 -17.161  1.00 48.01           C
ATOM   1647  C   VAL   211      -4.033 -29.893 -19.014  1.00 48.01           C
ATOM   1648  O   VAL   211      -4.274 -29.968 -20.218  1.00 48.01           O
ATOM   1649  N   LEU   212      -4.910 -29.385 -18.130  1.00 77.10           N
ATOM   1650  CA  LEU   212      -6.206 -28.955 -18.562  1.00 77.10           C
ATOM   1651  CB  LEU   212      -7.136 -28.558 -17.405  1.00 77.10           C
ATOM   1652  CG  LEU   212      -7.503 -29.737 -16.489  1.00 77.10           C
ATOM   1653  CD1 LEU   212      -6.271 -30.265 -15.738  1.00 77.10           C
ATOM   1654  CD2 LEU   212      -8.669 -29.377 -15.556  1.00 77.10           C
ATOM   1655  C   LEU   212      -6.081 -27.758 -19.443  1.00 77.10           C
ATOM   1656  O   LEU   212      -6.737 -27.664 -20.479  1.00 77.10           O
ATOM   1657  N   CYS   213      -5.220 -26.802 -19.060  1.00 31.81           N
ATOM   1658  CA  CYS   213      -5.142 -25.601 -19.834  1.00 31.81           C
ATOM   1659  CB  CYS   213      -4.157 -24.559 -19.277  1.00 31.81           C
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ATOM   1660  SG  CYS   213      -4.774 -23.721 -17.787  1.00 31.81           S
ATOM   1661  C   CYS   213      -4.685 -25.931 -21.211  1.00 31.81           C
ATOM   1662  O   CYS   213      -5.215 -25.408 -22.190  1.00 31.81           O
ATOM   1663  N   LEU   214      -3.686 -26.817 -21.338  1.00 49.62           N
ATOM   1664  CA  LEU   214      -3.205 -27.066 -22.659  1.00 49.62           C
ATOM   1665  CB  LEU   214      -2.004 -28.025 -22.706  1.00 49.62           C
ATOM   1666  CG  LEU   214      -0.739 -27.442 -22.051  1.00 49.62           C
ATOM   1667  CD1 LEU   214       0.463 -28.380 -22.230  1.00 49.62           C
ATOM   1668  CD2 LEU   214      -0.460 -26.014 -22.545  1.00 49.62           C
ATOM   1669  C   LEU   214      -4.300 -27.657 -23.474  1.00 49.62           C
ATOM   1670  O   LEU   214      -4.568 -27.185 -24.574  1.00 49.62           O
ATOM   1671  N   ILE   215      -5.010 -28.664 -22.931  1.00 81.20           N
ATOM   1672  CA  ILE   215      -6.004 -29.322 -23.727  1.00 81.20           C
ATOM   1673  CB  ILE   215      -6.671 -30.482 -23.043  1.00 81.20           C
ATOM   1674  CG2 ILE   215      -7.418 -29.962 -21.808  1.00 81.20           C
ATOM   1675  CG1 ILE   215      -7.565 -31.240 -24.043  1.00 81.20           C
ATOM   1676  CD1 ILE   215      -8.067 -32.588 -23.528  1.00 81.20           C
ATOM   1677  C   ILE   215      -7.060 -28.343 -24.108  1.00 81.20           C
ATOM   1678  O   ILE   215      -7.522 -28.337 -25.248  1.00 81.20           O
ATOM   1679  N   ILE   216      -7.480 -27.486 -23.161  1.00110.05           N
ATOM   1680  CA  ILE   216      -8.512 -26.547 -23.477  1.00110.05           C
ATOM   1681  CB  ILE   216      -8.992 -25.766 -22.280  1.00110.05           C
ATOM   1682  CG2 ILE   216      -7.867 -24.834 -21.799  1.00110.05           C
ATOM   1683  CG1 ILE   216     -10.298 -25.031 -22.620  1.00110.05           C
ATOM   1684  CD1 ILE   216     -11.464 -25.972 -22.918  1.00110.05           C
ATOM   1685  C   ILE   216      -7.998 -25.605 -24.526  1.00110.05           C
ATOM   1686  O   ILE   216      -8.698 -25.289 -25.487  1.00110.05           O
ATOM   1687  N   SER   217      -6.742 -25.146 -24.370  1.00 36.13           N
ATOM   1688  CA  SER   217      -6.135 -24.213 -25.274  1.00 36.13           C
ATOM   1689  CB  SER   217      -4.796 -23.661 -24.752  1.00 36.13           C
ATOM   1690  OG  SER   217      -3.846 -24.708 -24.612  1.00 36.13           O
ATOM   1691  C   SER   217      -5.878 -24.865 -26.598  1.00 36.13           C
ATOM   1692  O   SER   217      -5.750 -24.176 -27.609  1.00 36.13           O
ATOM   1693  N   TYR   218      -5.817 -26.211 -26.646  1.00116.04           N
ATOM   1694  CA  TYR   218      -5.505 -26.858 -27.889  1.00116.04           C
ATOM   1695  CB  TYR   218      -5.507 -28.402 -27.875  1.00116.04           C
ATOM   1696  CG  TYR   218      -4.205 -28.919 -27.364  1.00116.04           C
ATOM   1697  CD1 TYR   218      -3.111 -28.919 -28.197  1.00116.04           C
ATOM   1698  CD2 TYR   218      -4.059 -29.400 -26.085  1.00116.04           C
ATOM   1699  CE1 TYR   218      -1.891 -29.385 -27.769  1.00116.04           C
ATOM   1700  CE2 TYR   218      -2.841 -29.870 -25.647  1.00116.04           C
ATOM   1701  CZ  TYR   218      -1.754 -29.862 -26.488  1.00116.04           C
ATOM   1702  OH  TYR   218      -0.504 -30.342 -26.043  1.00116.04           O
ATOM   1703  C   TYR   218      -6.510 -26.469 -28.912  1.00116.04           C
ATOM   1704  O   TYR   218      -6.154 -26.186 -30.053  1.00116.04           O
ATOM   1705  N   THR   219      -7.798 -26.438 -28.538  1.00 96.24           N
ATOM   1706  CA  THR   219      -8.779 -26.091 -29.519  1.00 96.24           C
ATOM   1707  CB  THR   219     -10.180 -26.065 -28.980  1.00 96.24           C
ATOM   1708  OG1 THR   219     -10.291 -25.094 -27.949  1.00 96.24           O
ATOM   1709  CG2 THR   219     -10.543 -27.464 -28.450  1.00 96.24           C
ATOM   1710  C   THR   219      -8.459 -24.714 -30.000  1.00 96.24           C
ATOM   1711  O   THR   219      -8.536 -24.432 -31.194  1.00 96.24           O
ATOM   1712  N   ASN   220      -8.071 -23.820 -29.073  1.00 34.30           N
ATOM   1713  CA  ASN   220      -7.777 -22.469 -29.450  1.00 34.30           C
ATOM   1714  CB  ASN   220      -7.424 -21.578 -28.247  1.00 34.30           C
ATOM   1715  CG  ASN   220      -8.673 -21.403 -27.396  1.00 34.30           C
ATOM   1716  OD1 ASN   220      -9.733 -21.946 -27.701  1.00 34.30           O
ATOM   1717  ND2 ASN   220      -8.547 -20.606 -26.302  1.00 34.30           N
ATOM   1718  C   ASN   220      -6.600 -22.438 -30.378  1.00 34.30           C
ATOM   1719  O   ASN   220      -6.643 -21.786 -31.420  1.00 34.30           O
ATOM   1720  N   VAL   221      -5.516 -23.154 -30.025  1.00 91.99           N
ATOM   1721  CA  VAL   221      -4.318 -23.125 -30.816  1.00 91.99           C
ATOM   1722  CB  VAL   221      -3.168 -23.847 -30.175  1.00 91.99           C
ATOM   1723  CG1 VAL   221      -2.801 -23.123 -28.870  1.00 91.99           C
ATOM   1724  CG2 VAL   221      -3.555 -25.319 -29.981  1.00 91.99           C
ATOM   1725  C   VAL   221      -4.566 -23.748 -32.156  1.00 91.99           C
ATOM   1726  O   VAL   221      -4.087 -23.254 -33.175  1.00 91.99           O
ATOM   1727  N   PHE   222      -5.348 -24.841 -32.186  1.00 69.99           N
ATOM   1728  CA  PHE   222      -5.616 -25.573 -33.391  1.00 69.99           C
ATOM   1729  CB  PHE   222      -6.404 -26.880 -33.202  1.00 69.99           C
ATOM   1730  CG  PHE   222      -5.403 -27.939 -32.905  1.00 69.99           C
ATOM   1731  CD1 PHE   222      -4.676 -28.476 -33.942  1.00 69.99           C
ATOM   1732  CD2 PHE   222      -5.191 -28.398 -31.628  1.00 69.99           C
ATOM   1733  CE1 PHE   222      -3.744 -29.458 -33.717  1.00 69.99           C
ATOM   1734  CE2 PHE   222      -4.258 -29.383 -31.397  1.00 69.99           C
ATOM   1735  CZ  PHE   222      -3.532 -29.912 -32.438  1.00 69.99           C
ATOM   1736  C   PHE   222      -6.345 -24.734 -34.375  1.00 69.99           C
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ATOM   1737  O   PHE   222      -6.248 -24.986 -35.573  1.00 69.99           O
ATOM   1738  N   SER   223      -7.133 -23.751 -33.911  1.00 41.46           N
ATOM   1739  CA  SER   223      -7.885 -22.967 -34.845  1.00 41.46           C
ATOM   1740  CB  SER   223      -8.671 -21.823 -34.180  1.00 41.46           C
ATOM   1741  OG  SER   223      -7.783 -20.882 -33.595  1.00 41.46           O
ATOM   1742  C   SER   223      -6.954 -22.370 -35.861  1.00 41.46           C
ATOM   1743  O   SER   223      -7.200 -22.487 -37.061  1.00 41.46           O
ATOM   1744  N   THR   224      -5.864 -21.709 -35.424  1.00126.29           N
ATOM   1745  CA  THR   224      -4.953 -21.149 -36.382  1.00126.29           C
ATOM   1746  CB  THR   224      -3.962 -20.216 -35.744  1.00126.29           C
ATOM   1747  OG1 THR   224      -3.085 -19.688 -36.727  1.00126.29           O
ATOM   1748  CG2 THR   224      -3.180 -20.950 -34.639  1.00126.29           C
ATOM   1749  C   THR   224      -4.209 -22.221 -37.128  1.00126.29           C
ATOM   1750  O   THR   224      -4.276 -22.279 -38.355  1.00126.29           O
ATOM   1751  N   ILE   225      -3.500 -23.123 -36.412  1.00122.54           N
ATOM   1752  CA  ILE   225      -2.755 -24.133 -37.107  1.00122.54           C
ATOM   1753  CB  ILE   225      -1.292 -24.102 -36.745  1.00122.54           C
ATOM   1754  CG2 ILE   225      -1.146 -24.167 -35.215  1.00122.54           C
ATOM   1755  CG1 ILE   225      -0.507 -25.174 -37.513  1.00122.54           C
ATOM   1756  CD1 ILE   225       1.006 -24.986 -37.409  1.00122.54           C
ATOM   1757  C   ILE   225      -3.338 -25.462 -36.759  1.00122.54           C
ATOM   1758  O   ILE   225      -2.804 -26.215 -35.947  1.00122.54           O
ATOM   1759  N   LEU   226      -4.499 -25.765 -37.354  1.00116.61           N
ATOM   1760  CA  LEU   226      -5.139 -27.022 -37.128  1.00116.61           C
ATOM   1761  CB  LEU   226      -6.610 -26.984 -37.600  1.00116.61           C
ATOM   1762  CG  LEU   226      -7.475 -28.253 -37.409  1.00116.61           C
ATOM   1763  CD1 LEU   226      -8.930 -27.943 -37.795  1.00116.61           C
ATOM   1764  CD2 LEU   226      -6.957 -29.479 -38.183  1.00116.61           C
ATOM   1765  C   LEU   226      -4.400 -28.067 -37.898  1.00116.61           C
ATOM   1766  O   LEU   226      -4.145 -29.163 -37.402  1.00116.61           O
ATOM   1767  N   LYS   227      -4.024 -27.693 -39.136  1.00178.38           N
ATOM   1768  CA  LYS   227      -3.546 -28.561 -40.171  1.00178.38           C
ATOM   1769  CB  LYS   227      -3.324 -27.793 -41.484  1.00178.38           C
ATOM   1770  CG  LYS   227      -2.854 -28.664 -42.650  1.00178.38           C
ATOM   1771  CD  LYS   227      -3.934 -29.605 -43.181  1.00178.38           C
ATOM   1772  CE  LYS   227      -4.199 -30.804 -42.271  1.00178.38           C
ATOM   1773  NZ  LYS   227      -3.020 -31.697 -42.266  1.00178.38           N
ATOM   1774  C   LYS   227      -2.275 -29.290 -39.903  1.00178.38           C
ATOM   1775  O   LYS   227      -2.258 -30.517 -39.959  1.00178.38           O
ATOM   1776  N   ILE   228      -1.165 -28.611 -39.578  1.00197.84           N
ATOM   1777  CA  ILE   228      -0.033 -29.482 -39.614  1.00197.84           C
ATOM   1778  CB  ILE   228       0.997 -29.086 -40.643  1.00197.84           C
ATOM   1779  CG2 ILE   228       0.313 -29.169 -42.019  1.00197.84           C
ATOM   1780  CG1 ILE   228       1.624 -27.708 -40.349  1.00197.84           C
ATOM   1781  CD1 ILE   228       0.622 -26.556 -40.324  1.00197.84           C
ATOM   1782  C   ILE   228       0.638 -29.618 -38.298  1.00197.84           C
ATOM   1783  O   ILE   228       1.333 -28.721 -37.822  1.00197.84           O
ATOM   1784  N   PRO   229       0.373 -30.727 -37.669  1.00225.85           N
ATOM   1785  CA  PRO   229       1.150 -31.066 -36.520  1.00225.85           C
ATOM   1786  CD  PRO   229      -0.999 -31.195 -37.544  1.00225.85           C
ATOM   1787  CB  PRO   229       0.315 -32.056 -35.712  1.00225.85           C
ATOM   1788  CG  PRO   229      -1.131 -31.735 -36.115  1.00225.85           C
ATOM   1789  C   PRO   229       2.427 -31.670 -36.999  1.00225.85           C
ATOM   1790  O   PRO   229       3.409 -31.665 -36.264  1.00225.85           O
ATOM   1791  N   SER   230       2.453 -32.176 -38.244  1.00149.80           N
ATOM   1792  CA  SER   230       3.583 -32.944 -38.675  1.00149.80           C
ATOM   1793  CB  SER   230       3.436 -33.503 -40.099  1.00149.80           C
ATOM   1794  OG  SER   230       3.342 -32.434 -41.027  1.00149.80           O
ATOM   1795  C   SER   230       4.835 -32.143 -38.607  1.00149.80           C
ATOM   1796  O   SER   230       4.857 -30.947 -38.894  1.00149.80           O
ATOM   1797  N   ALA   231       5.917 -32.819 -38.171  1.00319.56           N
ATOM   1798  CA  ALA   231       7.206 -32.210 -38.088  1.00319.56           C
ATOM   1799  CB  ALA   231       7.193 -30.804 -37.467  1.00319.56           C
ATOM   1800  C   ALA   231       8.016 -33.058 -37.200  1.00319.56           C
ATOM   1801  O   ALA   231       7.481 -33.878 -36.453  1.00319.56           O
ATOM   1802  N   GLN   232       9.345 -32.878 -37.251  1.00227.53           N
ATOM   1803  CA  GLN   232      10.125 -33.635 -36.336  1.00227.53           C
ATOM   1804  CB  GLN   232      11.593 -33.772 -36.760  1.00227.53           C
ATOM   1805  CG  GLN   232      11.741 -34.515 -38.087  1.00227.53           C
ATOM   1806  CD  GLN   232      11.160 -35.912 -37.909  1.00227.53           C
ATOM   1807  OE1 GLN   232      11.705 -36.737 -37.178  1.00227.53           O
ATOM   1808  NE2 GLN   232      10.013 -36.182 -38.589  1.00227.53           N
ATOM   1809  C   GLN   232      10.069 -32.852 -35.076  1.00227.53           C
ATOM   1810  O   GLN   232      11.075 -32.345 -34.582  1.00227.53           O
ATOM   1811  N   GLY   233       8.847 -32.742 -34.529  1.00219.48           N
ATOM   1812  CA  GLY   233       8.653 -32.045 -33.306  1.00219.48           C
ATOM   1813  C   GLY   233       8.706 -30.580 -33.570  1.00219.48           C
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ATOM	1814	O	GLY	233	8.821	-29.789	-32.636	1.00219.48	O
ATOM	1815	N	LYS	234	8.618	-30.160	-34.844	1.00185.45	N
ATOM	1816	CA	LYS	234	8.670	-28.748	-35.074	1.00185.45	C
ATOM	1817	CB	LYS	234	8.594	-28.358	-36.561	1.00185.45	C
ATOM	1818	CG	LYS	234	9.842	-28.738	-37.363	1.00185.45	C
ATOM	1819	CD	LYS	234	11.131	-28.137	-36.801	1.00185.45	C
ATOM	1820	CE	LYS	234	11.068	-26.620	-36.623	1.00185.45	C
ATOM	1821	NZ	LYS	234	12.219	-26.158	-35.816	1.00185.45	N
ATOM	1822	C	LYS	234	7.487	-28.156	-34.387	1.00185.45	C
ATOM	1823	O	LYS	234	7.590	-27.115	-33.739	1.00185.45	O
ATOM	1824	N	ARG	235	6.327	-28.829	-34.502	1.00163.13	N
ATOM	1825	CA	ARG	235	5.136	-28.301	-33.909	1.00163.13	C
ATOM	1826	CB	ARG	235	4.209	-27.720	-34.985	1.00163.13	C
ATOM	1827	CG	ARG	235	4.962	-26.707	-35.849	1.00163.13	C
ATOM	1828	CD	ARG	235	4.135	-26.010	-36.927	1.00163.13	C
ATOM	1829	NE	ARG	235	5.088	-25.143	-37.674	1.00163.13	N
ATOM	1830	CZ	ARG	235	5.507	-23.968	-37.122	1.00163.13	C
ATOM	1831	NH1	ARG	235	5.016	-23.573	-35.910	1.00163.13	N
ATOM	1832	NH2	ARG	235	6.429	-23.198	-37.770	1.00163.13	N
ATOM	1833	C	ARG	235	4.418	-29.431	-33.236	1.00163.13	C
ATOM	1834	O	ARG	235	3.734	-29.237	-32.233	1.00163.13	O
ATOM	1835	N	LYS	236	4.605	-30.654	-33.767	1.00126.30	N
ATOM	1836	CA	LYS	236	3.965	-31.859	-33.314	1.00126.30	C
ATOM	1837	CB	LYS	236	4.395	-33.083	-34.149	1.00126.30	C
ATOM	1838	CG	LYS	236	3.534	-34.343	-34.004	1.00126.30	C
ATOM	1839	CD	LYS	236	3.674	-35.104	-32.685	1.00126.30	C
ATOM	1840	CE	LYS	236	2.854	-36.399	-32.669	1.00126.30	C
ATOM	1841	NZ	LYS	236	3.345	-37.315	-31.616	1.00126.30	N
ATOM	1842	C	LYS	236	4.383	-32.117	-31.907	1.00126.30	C
ATOM	1843	O	LYS	236	3.622	-32.659	-31.106	1.00126.30	O
ATOM	1844	N	ALA	237	5.606	-31.686	-31.566	1.00 52.55	N
ATOM	1845	CA	ALA	237	6.178	-31.976	-30.289	1.00 52.55	C
ATOM	1846	CB	ALA	237	7.538	-31.294	-30.071	1.00 52.55	C
ATOM	1847	C	ALA	237	5.253	-31.495	-29.223	1.00 52.55	C
ATOM	1848	O	ALA	237	5.143	-32.125	-28.178	1.00 52.55	O
ATOM	1849	N	PHE	238	4.546	-30.381	-29.452	1.00116.13	N
ATOM	1850	CA	PHE	238	3.712	-29.809	-28.433	1.00116.13	C
ATOM	1851	CB	PHE	238	2.943	-28.593	-28.976	1.00116.13	C
ATOM	1852	CG	PHE	238	2.369	-27.817	-27.844	1.00116.13	C
ATOM	1853	CD1	PHE	238	1.114	-28.103	-27.361	1.00116.13	C
ATOM	1854	CD2	PHE	238	3.094	-26.796	-27.271	1.00116.13	C
ATOM	1855	CE1	PHE	238	0.588	-27.379	-26.317	1.00116.13	C
ATOM	1856	CE2	PHE	238	2.573	-26.068	-26.227	1.00116.13	C
ATOM	1857	CZ	PHE	238	1.318	-26.362	-25.750	1.00116.13	C
ATOM	1858	C	PHE	238	2.703	-30.823	-27.981	1.00116.13	C
ATOM	1859	O	PHE	238	2.507	-31.016	-26.782	1.00116.13	O
ATOM	1860	N	SER	239	2.030	-31.507	-28.926	1.00 75.53	N
ATOM	1861	CA	SER	239	1.041	-32.474	-28.537	1.00 75.53	C
ATOM	1862	CB	SER	239	0.343	-33.130	-29.740	1.00 75.53	C
ATOM	1863	OG	SER	239	-0.623	-34.070	-29.294	1.00 75.53	O
ATOM	1864	C	SER	239	1.715	-33.572	-27.777	1.00 75.53	C
ATOM	1865	O	SER	239	1.220	-34.030	-26.748	1.00 75.53	O
ATOM	1866	N	THR	240	2.891	-33.998	-28.268	1.00 44.82	N
ATOM	1867	CA	THR	240	3.615	-35.095	-27.700	1.00 44.82	C
ATOM	1868	CB	THR	240	4.878	-35.398	-28.444	1.00 44.82	C
ATOM	1869	OG1	THR	240	4.590	-35.682	-29.804	1.00 44.82	O
ATOM	1870	CG2	THR	240	5.551	-36.609	-27.777	1.00 44.82	C
ATOM	1871	C	THR	240	4.028	-34.747	-26.313	1.00 44.82	C
ATOM	1872	O	THR	240	4.019	-35.593	-25.423	1.00 44.82	O
ATOM	1873	N	CYS	241	4.390	-33.476	-26.093	1.00 78.90	N
ATOM	1874	CA	CYS	241	4.924	-33.050	-24.840	1.00 78.90	C
ATOM	1875	CB	CYS	241	5.169	-31.532	-24.812	1.00 78.90	C
ATOM	1876	SG	CYS	241	5.970	-30.982	-23.279	1.00 78.90	S
ATOM	1877	C	CYS	241	3.928	-33.389	-23.781	1.00 78.90	C
ATOM	1878	O	CYS	241	4.276	-33.986	-22.764	1.00 78.90	O
ATOM	1879	N	SER	242	2.651	-33.041	-24.007	1.00 71.57	N
ATOM	1880	CA	SER	242	1.641	-33.317	-23.031	1.00 71.57	C
ATOM	1881	CB	SER	242	0.277	-32.718	-23.409	1.00 71.57	C
ATOM	1882	OG	SER	242	0.379	-31.302	-23.472	1.00 71.57	O
ATOM	1883	C	SER	242	1.479	-34.801	-22.915	1.00 71.57	C
ATOM	1884	O	SER	242	1.269	-35.322	-21.821	1.00 71.57	O
ATOM	1885	N	SER	243	1.586	-35.522	-24.048	1.00 75.63	N
ATOM	1886	CA	SER	243	1.388	-36.944	-24.053	1.00 75.63	C
ATOM	1887	CB	SER	243	1.438	-37.544	-25.470	1.00 75.63	C
ATOM	1888	OG	SER	243	0.345	-37.072	-26.245	1.00 75.63	O
ATOM	1889	C	SER	243	2.449	-37.622	-23.237	1.00 75.63	C
ATOM	1890	O	SER	243	2.156	-38.530	-22.467	1.00 75.63	O

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ATOM   1891  N   HIS   244       3.715 -37.196 -23.383  1.00 88.63           N
ATOM   1892  CA  HIS   244       4.838 -37.790 -22.710  1.00 88.63           C
ATOM   1893  ND1 HIS   244       7.649 -37.788 -21.181  1.00 88.63           N
ATOM   1894  CG  HIS   244       7.405 -37.643 -22.529  1.00 88.63           C
ATOM   1895  CB  HIS   244       6.143 -37.072 -23.105  1.00 88.63           C
ATOM   1896  NE2 HIS   244       9.476 -38.491 -22.239  1.00 88.63           N
ATOM   1897  CD2 HIS   244       8.531 -38.075 -23.159  1.00 88.63           C
ATOM   1898  CE1 HIS   244       8.902 -38.299 -21.065  1.00 88.63           C
ATOM   1899  C   HIS   244       4.663 -37.615 -21.238  1.00 88.63           C
ATOM   1900  O   HIS   244       4.865 -38.541 -20.454  1.00 88.63           O
ATOM   1901  N   LEU   245       4.276 -36.400 -20.821  1.00141.77           N
ATOM   1902  CA  LEU   245       4.123 -36.156 -19.420  1.00141.77           C
ATOM   1903  CB  LEU   245       3.705 -34.704 -19.125  1.00141.77           C
ATOM   1904  CG  LEU   245       4.711 -33.663 -19.654  1.00141.77           C
ATOM   1905  CD1 LEU   245       4.269 -32.231 -19.313  1.00141.77           C
ATOM   1906  CD2 LEU   245       6.142 -33.975 -19.193  1.00141.77           C
ATOM   1907  C   LEU   245       3.023 -37.049 -18.939  1.00141.77           C
ATOM   1908  O   LEU   245       3.138 -37.691 -17.896  1.00141.77           O
ATOM   1909  N   SER   246       1.932 -37.126 -19.723  1.00 74.01           N
ATOM   1910  CA  SER   246       0.780 -37.892 -19.348  1.00 74.01           C
ATOM   1911  CB  SER   246      -0.369 -37.788 -20.368  1.00 74.01           C
ATOM   1912  OG  SER   246      -0.808 -36.443 -20.480  1.00 74.01           O
ATOM   1913  C   SER   246       1.149 -39.340 -19.259  1.00 74.01           C
ATOM   1914  O   SER   246       0.759 -40.026 -18.317  1.00 74.01           O
ATOM   1915  N   VAL   247       1.904 -39.855 -20.246  1.00 90.53           N
ATOM   1916  CA  VAL   247       2.248 -41.247 -20.250  1.00 90.53           C
ATOM   1917  CB  VAL   247       2.950 -41.698 -21.504  1.00 90.53           C
ATOM   1918  CG1 VAL   247       1.989 -41.511 -22.692  1.00 90.53           C
ATOM   1919  CG2 VAL   247       4.281 -40.942 -21.641  1.00 90.53           C
ATOM   1920  C   VAL   247       3.129 -41.527 -19.077  1.00 90.53           C
ATOM   1921  O   VAL   247       2.931 -42.506 -18.360  1.00 90.53           O
ATOM   1922  N   VAL   248       4.120 -40.648 -18.840  1.00 33.72           N
ATOM   1923  CA  VAL   248       5.035 -40.829 -17.757  1.00 33.72           C
ATOM   1924  CB  VAL   248       6.049 -39.725 -17.685  1.00 33.72           C
ATOM   1925  CG1 VAL   248       6.870 -39.897 -16.395  1.00 33.72           C
ATOM   1926  CG2 VAL   248       6.890 -39.747 -18.974  1.00 33.72           C
ATOM   1927  C   VAL   248       4.240 -40.795 -16.494  1.00 33.72           C
ATOM   1928  O   VAL   248       4.458 -41.596 -15.585  1.00 33.72           O
ATOM   1929  N   SER   249       3.288 -39.847 -16.423  1.00 47.32           N
ATOM   1930  CA  SER   249       2.459 -39.647 -15.273  1.00 47.32           C
ATOM   1931  CB  SER   249       1.654 -38.334 -15.310  1.00 47.32           C
ATOM   1932  OG  SER   249       0.679 -38.372 -16.340  1.00 47.32           O
ATOM   1933  C   SER   249       1.484 -40.773 -15.154  1.00 47.32           C
ATOM   1934  O   SER   249       0.906 -40.970 -14.087  1.00 47.32           O
ATOM   1935  N   LEU   250       1.253 -41.537 -16.241  1.00140.51           N
ATOM   1936  CA  LEU   250       0.289 -42.592 -16.128  1.00140.51           C
ATOM   1937  CB  LEU   250       0.133 -43.440 -17.406  1.00140.51           C
ATOM   1938  CG  LEU   250      -0.517 -42.710 -18.596  1.00140.51           C
ATOM   1939  CD1 LEU   250      -0.628 -43.648 -19.812  1.00140.51           C
ATOM   1940  CD2 LEU   250      -1.867 -42.081 -18.202  1.00140.51           C
ATOM   1941  C   LEU   250       0.793 -43.513 -15.074  1.00140.51           C
ATOM   1942  O   LEU   250       0.048 -43.916 -14.183  1.00140.51           O
ATOM   1943  N   PHE   251       2.077 -43.896 -15.184  1.00108.97           N
ATOM   1944  CA  PHE   251       2.713 -44.730 -14.206  1.00108.97           C
ATOM   1945  CB  PHE   251       3.978 -45.405 -14.745  1.00108.97           C
ATOM   1946  CG  PHE   251       3.536 -46.363 -15.795  1.00108.97           C
ATOM   1947  CD1 PHE   251       3.316 -45.940 -17.086  1.00108.97           C
ATOM   1948  CD2 PHE   251       3.334 -47.686 -15.483  1.00108.97           C
ATOM   1949  CE1 PHE   251       2.909 -46.827 -18.056  1.00108.97           C
ATOM   1950  CE2 PHE   251       2.927 -48.578 -16.446  1.00108.97           C
ATOM   1951  CZ  PHE   251       2.716 -48.149 -17.734  1.00108.97           C
ATOM   1952  C   PHE   251       3.101 -43.947 -12.986  1.00108.97           C
ATOM   1953  O   PHE   251       2.975 -44.421 -11.861  1.00108.97           O
ATOM   1954  N   PHE   252       3.613 -42.724 -13.211  1.00138.88           N
ATOM   1955  CA  PHE   252       4.216 -41.854 -12.237  1.00138.88           C
ATOM   1956  CB  PHE   252       4.753 -40.610 -12.964  1.00138.88           C
ATOM   1957  CG  PHE   252       6.021 -40.139 -12.348  1.00138.88           C
ATOM   1958  CD1 PHE   252       7.203 -40.670 -12.809  1.00138.88           C
ATOM   1959  CD2 PHE   252       6.054 -39.190 -11.354  1.00138.88           C
ATOM   1960  CE1 PHE   252       8.409 -40.271 -12.291  1.00138.88           C
ATOM   1961  CE2 PHE   252       7.261 -38.786 -10.832  1.00138.88           C
ATOM   1962  CZ  PHE   252       8.437 -39.328 -11.295  1.00138.88           C
ATOM   1963  C   PHE   252       3.201 -41.375 -11.234  1.00138.88           C
ATOM   1964  O   PHE   252       3.464 -41.351 -10.033  1.00138.88           O
ATOM   1965  N   GLY   253       2.005 -40.981 -11.715  1.00 41.25           N
ATOM   1966  CA  GLY   253       1.018 -40.333 -10.893  1.00 41.25           C
ATOM   1967  C   GLY   253       0.519 -41.181  -9.755  1.00 41.25           C
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ATOM   1968  O   GLY   253       0.443 -40.701  -8.628  1.00 41.25           O
ATOM   1969  N   THR   254       0.151 -42.455  -9.999  1.00 38.94           N
ATOM   1970  CA  THR   254      -0.425 -43.256  -8.947  1.00 38.94           C
ATOM   1971  CB  THR   254      -0.830 -44.626  -9.418  1.00 38.94           C
ATOM   1972  OG1 THR   254      -1.786 -44.530 -10.463  1.00 38.94           O
ATOM   1973  CG2 THR   254      -1.415 -45.413  -8.231  1.00 38.94           C
ATOM   1974  C   THR   254       0.579 -43.472  -7.868  1.00 38.94           C
ATOM   1975  O   THR   254       0.293 -43.291  -6.684  1.00 38.94           O
ATOM   1976  N   SER   255       1.798 -43.866  -8.269  1.00 43.94           N
ATOM   1977  CA  SER   255       2.815 -44.164  -7.314  1.00 43.94           C
ATOM   1978  CB  SER   255       4.132 -44.631  -7.965  1.00 43.94           C
ATOM   1979  OG  SER   255       4.703 -43.581  -8.734  1.00 43.94           O
ATOM   1980  C   SER   255       3.114 -42.927  -6.545  1.00 43.94           C
ATOM   1981  O   SER   255       3.074 -42.949  -5.320  1.00 43.94           O
ATOM   1982  N   PHE   256       3.405 -41.807  -7.230  1.00 70.91           N
ATOM   1983  CA  PHE   256       3.751 -40.591  -6.549  1.00 70.91           C
ATOM   1984  CB  PHE   256       4.255 -39.467  -7.471  1.00 70.91           C
ATOM   1985  CG  PHE   256       5.723 -39.672  -7.619  1.00 70.91           C
ATOM   1986  CD1 PHE   256       6.244 -40.556  -8.535  1.00 70.91           C
ATOM   1987  CD2 PHE   256       6.583 -38.961  -6.813  1.00 70.91           C
ATOM   1988  CE1 PHE   256       7.606 -40.722  -8.638  1.00 70.91           C
ATOM   1989  CE2 PHE   256       7.943 -39.122  -6.912  1.00 70.91           C
ATOM   1990  CZ  PHE   256       8.456 -40.005  -7.830  1.00 70.91           C
ATOM   1991  C   PHE   256       2.619 -40.056  -5.746  1.00 70.91           C
ATOM   1992  O   PHE   256       2.843 -39.593  -4.630  1.00 70.91           O
ATOM   1993  N   CYS   257       1.388 -40.055  -6.277  1.00 46.75           N
ATOM   1994  CA  CYS   257       0.294 -39.522  -5.517  1.00 46.75           C
ATOM   1995  CB  CYS   257      -1.032 -39.543  -6.295  1.00 46.75           C
ATOM   1996  SG  CYS   257      -2.413 -38.874  -5.323  1.00 46.75           S
ATOM   1997  C   CYS   257       0.098 -40.358  -4.294  1.00 46.75           C
ATOM   1998  O   CYS   257       0.043 -39.854  -3.172  1.00 46.75           O
ATOM   1999  N   VAL   258       0.028 -41.686  -4.480  1.00 90.01           N
ATOM   2000  CA  VAL   258      -0.206 -42.540  -3.360  1.00 90.01           C
ATOM   2001  CB  VAL   258      -0.314 -43.992  -3.723  1.00 90.01           C
ATOM   2002  CG1 VAL   258       1.030 -44.468  -4.297  1.00 90.01           C
ATOM   2003  CG2 VAL   258      -0.755 -44.764  -2.468  1.00 90.01           C
ATOM   2004  C   VAL   258       0.948 -42.371  -2.440  1.00 90.01           C
ATOM   2005  O   VAL   258       0.791 -42.411  -1.227  1.00 90.01           O
ATOM   2006  N   ASP   259       2.145 -42.193  -3.020  1.00 78.34           N
ATOM   2007  CA  ASP   259       3.370 -42.017  -2.300  1.00 78.34           C
ATOM   2008  CB  ASP   259       4.636 -42.024  -3.180  1.00 78.34           C
ATOM   2009  CG  ASP   259       5.022 -43.469  -3.476  1.00 78.34           C
ATOM   2010  OD1 ASP   259       4.675 -44.358  -2.653  1.00 78.34           O
ATOM   2011  OD2 ASP   259       5.668 -43.701  -4.533  1.00 78.34           O
ATOM   2012  C   ASP   259       3.351 -40.721  -1.554  1.00 78.34           C
ATOM   2013  O   ASP   259       3.983 -40.604  -0.517  1.00 78.34           O
ATOM   2014  N   PHE   260       2.689 -39.667  -2.049  1.00111.36           N
ATOM   2015  CA  PHE   260       2.733 -38.486  -1.245  1.00111.36           C
ATOM   2016  CB  PHE   260       2.038 -37.260  -1.870  1.00111.36           C
ATOM   2017  CG  PHE   260       2.722 -36.918  -3.151  1.00111.36           C
ATOM   2018  CD1 PHE   260       4.028 -36.484  -3.169  1.00111.36           C
ATOM   2019  CD2 PHE   260       2.031 -36.996  -4.339  1.00111.36           C
ATOM   2020  CE1 PHE   260       4.637 -36.166  -4.362  1.00111.36           C
ATOM   2021  CE2 PHE   260       2.635 -36.677  -5.533  1.00111.36           C
ATOM   2022  CZ  PHE   260       3.945 -36.267  -5.546  1.00111.36           C
ATOM   2023  C   PHE   260       2.007 -38.817   0.011  1.00111.36           C
ATOM   2024  O   PHE   260       2.510 -38.618   1.115  1.00111.36           O
ATOM   2025  N   SER   261       0.821 -39.419  -0.145  1.00103.06           N
ATOM   2026  CA  SER   261       0.054 -39.747   1.013  1.00103.06           C
ATOM   2027  CB  SER   261      -1.305 -40.386   0.669  1.00103.06           C
ATOM   2028  OG  SER   261      -2.151 -39.452   0.013  1.00103.06           O
ATOM   2029  C   SER   261       0.812 -40.739   1.859  1.00103.06           C
ATOM   2030  O   SER   261       0.941 -40.574   3.073  1.00103.06           O
ATOM   2031  N   SER   262       1.359 -41.794   1.228  1.00 86.09           N
ATOM   2032  CA  SER   262       1.985 -42.864   1.953  1.00 86.09           C
ATOM   2033  CB  SER   262       2.281 -44.105   1.081  1.00 86.09           C
ATOM   2034  OG  SER   262       2.799 -43.744  -0.191  1.00 86.09           O
ATOM   2035  C   SER   262       3.187 -42.408   2.734  1.00 86.09           C
ATOM   2036  O   SER   262       3.222 -42.675   3.930  1.00 86.09           O
ATOM   2037  N   PRO   263       4.186 -41.767   2.184  1.00148.85           N
ATOM   2038  CA  PRO   263       5.169 -41.258   3.091  1.00148.85           C
ATOM   2039  CD  PRO   263       4.954 -42.532   1.218  1.00148.85           C
ATOM   2040  CB  PRO   263       6.364 -40.833   2.234  1.00148.85           C
ATOM   2041  CG  PRO   263       6.173 -41.635   0.931  1.00148.85           C
ATOM   2042  C   PRO   263       4.679 -40.250   4.071  1.00148.85           C
ATOM   2043  O   PRO   263       5.405 -39.991   5.031  1.00148.85           O
ATOM   2044  N   SER   264       3.491 -39.652   3.860  1.00115.98           N
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ATOM   2045  CA  SER   264       2.977 -38.791   4.883  1.00115.98           C
ATOM   2046  CB  SER   264       1.594 -38.204   4.563  1.00115.98           C
ATOM   2047  OG  SER   264       1.689 -37.294   3.478  1.00115.98           O
ATOM   2048  C   SER   264       2.825 -39.698   6.055  1.00115.98           C
ATOM   2049  O   SER   264       2.987 -39.294   7.204  1.00115.98           O
ATOM   2050  N   THR   265       2.511 -40.976   5.766  1.00179.81           N
ATOM   2051  CA  THR   265       2.474 -42.004   6.768  1.00179.81           C
ATOM   2052  CB  THR   265       1.655 -43.200   6.371  1.00179.81           C
ATOM   2053  OG1 THR   265       0.308 -42.820   6.128  1.00179.81           O
ATOM   2054  CG2 THR   265       1.723 -44.246   7.496  1.00179.81           C
ATOM   2055  C   THR   265       3.898 -42.471   6.865  1.00179.81           C
ATOM   2056  O   THR   265       4.355 -43.315   6.101  1.00179.81           O
ATOM   2057  N   HIS   266       4.624 -41.958   7.865  1.00205.83           N
ATOM   2058  CA  HIS   266       6.053 -42.086   7.990  1.00205.83           C
ATOM   2059  ND1 HIS   266       8.794 -40.202   8.870  1.00205.83           N
ATOM   2060  CG  HIS   266       8.060 -41.268   9.337  1.00205.83           C
ATOM   2061  CB  HIS   266       6.566 -41.357   9.243  1.00205.83           C
ATOM   2062  NE2 HIS   266      10.246 -41.633   9.757  1.00205.83           N
ATOM   2063  CD2 HIS   266       8.963 -42.136   9.875  1.00205.83           C
ATOM   2064  CE1 HIS   266      10.095 -40.471   9.148  1.00205.83           C
ATOM   2065  C   HIS   266       6.571 -43.495   8.064  1.00205.83           C
ATOM   2066  O   HIS   266       7.485 -43.846   7.322  1.00205.83           O
ATOM   2067  N   SER   267       6.006 -44.362   8.919  1.00 67.25           N
ATOM   2068  CA  SER   267       6.616 -45.646   9.138  1.00 67.25           C
ATOM   2069  CB  SER   267       5.901 -46.457  10.224  1.00 67.25           C
ATOM   2070  OG  SER   267       6.016 -45.780  11.466  1.00 67.25           O
ATOM   2071  C   SER   267       6.624 -46.452   7.881  1.00 67.25           C
ATOM   2072  O   SER   267       7.408 -47.390   7.742  1.00 67.25           O
ATOM   2073  N   ALA   268       5.772 -46.085   6.912  1.00 52.17           N
ATOM   2074  CA  ALA   268       5.650 -46.831   5.695  1.00 52.17           C
ATOM   2075  CB  ALA   268       4.669 -46.199   4.694  1.00 52.17           C
ATOM   2076  C   ALA   268       6.989 -46.921   5.035  1.00 52.17           C
ATOM   2077  O   ALA   268       7.906 -46.151   5.319  1.00 52.17           O
ATOM   2078  N   GLN   269       7.126 -47.909   4.130  1.00 97.23           N
ATOM   2079  CA  GLN   269       8.376 -48.167   3.486  1.00 97.23           C
ATOM   2080  CB  GLN   269       8.344 -49.388   2.550  1.00 97.23           C
ATOM   2081  CG  GLN   269       8.030 -50.691   3.291  1.00 97.23           C
ATOM   2082  CD  GLN   269       8.070 -51.834   2.286  1.00 97.23           C
ATOM   2083  OE1 GLN   269       8.645 -51.709   1.206  1.00 97.23           O
ATOM   2084  NE2 GLN   269       7.450 -52.986   2.655  1.00 97.23           N
ATOM   2085  C   GLN   269       8.781 -46.966   2.707  1.00 97.23           C
ATOM   2086  O   GLN   269       7.959 -46.113   2.380  1.00 97.23           O
ATOM   2087  N   LYS   270      10.094 -46.854   2.433  1.00283.45           N
ATOM   2088  CA  LYS   270      10.591 -45.710   1.736  1.00283.45           C
ATOM   2089  CB  LYS   270      11.582 -44.917   2.601  1.00283.45           C
ATOM   2090  CG  LYS   270      10.956 -44.476   3.930  1.00283.45           C
ATOM   2091  CD  LYS   270      11.963 -44.112   5.024  1.00283.45           C
ATOM   2092  CE  LYS   270      11.322 -43.773   6.374  1.00283.45           C
ATOM   2093  NZ  LYS   270      10.540 -42.521   6.271  1.00283.45           N
ATOM   2094  C   LYS   270      11.284 -46.195   0.498  1.00283.45           C
ATOM   2095  O   LYS   270      11.874 -47.274   0.478  1.00283.45           O
ATOM   2096  N   ASP   271      11.169 -45.415  -0.595  1.00184.73           N
ATOM   2097  CA  ASP   271      11.786 -45.754  -1.845  1.00184.73           C
ATOM   2098  CB  ASP   271      10.852 -45.593  -3.055  1.00184.73           C
ATOM   2099  CG  ASP   271       9.841 -46.731  -3.019  1.00184.73           C
ATOM   2100  OD1 ASP   271      10.233 -47.858  -2.611  1.00184.73           O
ATOM   2101  OD2 ASP   271       8.663 -46.490  -3.391  1.00184.73           O
ATOM   2102  C   ASP   271      12.967 -44.865  -2.075  1.00184.73           C
ATOM   2103  O   ASP   271      13.540 -44.298  -1.146  1.00184.73           O
ATOM   2104  N   THR   272      13.349 -44.755  -3.366  1.00207.02           N
ATOM   2105  CA  THR   272      14.456 -43.964  -3.830  1.00207.02           C
ATOM   2106  CB  THR   272      15.677 -44.780  -4.149  1.00207.02           C
ATOM   2107  OG1 THR   272      16.794 -43.929  -4.363  1.00207.02           O
ATOM   2108  CG2 THR   272      15.400 -45.636  -5.398  1.00207.02           C
ATOM   2109  C   THR   272      14.017 -43.235  -5.083  1.00207.02           C
ATOM   2110  O   THR   272      12.829 -42.958  -5.228  1.00207.02           O
ATOM   2111  N   VAL   273      14.966 -42.912  -6.009  1.00244.01           N
ATOM   2112  CA  VAL   273      14.759 -42.101  -7.192  1.00244.01           C
ATOM   2113  CB  VAL   273      16.053 -41.601  -7.770  1.00244.01           C
ATOM   2114  CG1 VAL   273      16.672 -40.623  -6.760  1.00244.01           C
ATOM   2115  CG2 VAL   273      16.971 -42.797  -8.084  1.00244.01           C
ATOM   2116  C   VAL   273      13.988 -42.767  -8.306  1.00244.01           C
ATOM   2117  O   VAL   273      14.546 -43.366  -9.225  1.00244.01           O
ATOM   2118  N   ALA   274      12.649 -42.632  -8.261  1.00 78.05           N
ATOM   2119  CA  ALA   274      11.743 -43.107  -9.273  1.00 78.05           C
ATOM   2120  CB  ALA   274      10.278 -43.062  -8.806  1.00 78.05           C
ATOM   2121  C   ALA   274      11.841 -42.276 -10.523  1.00 78.05           C
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ATOM   2122  O   ALA   274      11.754 -42.798 -11.634  1.00 78.05           O
ATOM   2123  N   SER   275      11.999 -40.944 -10.369  1.00 81.41           N
ATOM   2124  CA  SER   275      12.002 -40.053 -11.500  1.00 81.41           C
ATOM   2125  CB  SER   275      12.105 -38.570 -11.123  1.00 81.41           C
ATOM   2126  OG  SER   275      12.078 -37.765 -12.293  1.00 81.41           O
ATOM   2127  C   SER   275      13.183 -40.359 -12.351  1.00 81.41           C
ATOM   2128  O   SER   275      13.137 -40.202 -13.570  1.00 81.41           O
ATOM   2129  N   VAL   276      14.288 -40.790 -11.724  1.00 42.26           N
ATOM   2130  CA  VAL   276      15.457 -41.099 -12.486  1.00 42.26           C
ATOM   2131  CB  VAL   276      16.610 -41.511 -11.616  1.00 42.26           C
ATOM   2132  CG1 VAL   276      17.813 -41.838 -12.511  1.00 42.26           C
ATOM   2133  CG2 VAL   276      16.876 -40.398 -10.594  1.00 42.26           C
ATOM   2134  C   VAL   276      15.122 -42.255 -13.384  1.00 42.26           C
ATOM   2135  O   VAL   276      15.404 -42.226 -14.580  1.00 42.26           O
ATOM   2136  N   MET   277      14.473 -43.303 -12.830  1.00145.52           N
ATOM   2137  CA  MET   277      14.165 -44.496 -13.576  1.00145.52           C
ATOM   2138  CB  MET   277      13.519 -45.586 -12.699  1.00145.52           C
ATOM   2139  CG  MET   277      13.377 -46.963 -13.360  1.00145.52           C
ATOM   2140  SD  MET   277      12.153 -47.077 -14.699  1.00145.52           S
ATOM   2141  CE  MET   277      12.151 -48.894 -14.725  1.00145.52           C
ATOM   2142  C   MET   277      13.220 -44.183 -14.695  1.00145.52           C
ATOM   2143  O   MET   277      13.391 -44.664 -15.814  1.00145.52           O
ATOM   2144  N   TYR   278      12.203 -43.347 -14.423  1.00118.64           N
ATOM   2145  CA  TYR   278      11.224 -43.007 -15.413  1.00118.64           C
ATOM   2146  CB  TYR   278      10.041 -42.186 -14.869  1.00118.64           C
ATOM   2147  CG  TYR   278       9.122 -43.126 -14.158  1.00118.64           C
ATOM   2148  CD1 TYR   278       9.337 -43.510 -12.852  1.00118.64           C
ATOM   2149  CD2 TYR   278       8.024 -43.631 -14.817  1.00118.64           C
ATOM   2150  CE1 TYR   278       8.468 -44.377 -12.226  1.00118.64           C
ATOM   2151  CE2 TYR   278       7.152 -44.496 -14.200  1.00118.64           C
ATOM   2152  CZ  TYR   278       7.375 -44.872 -12.899  1.00118.64           C
ATOM   2153  OH  TYR   278       6.481 -45.760 -12.264  1.00118.64           O
ATOM   2154  C   TYR   278      11.865 -42.268 -16.547  1.00118.64           C
ATOM   2155  O   TYR   278      11.439 -42.399 -17.693  1.00118.64           O
ATOM   2156  N   THR   279      12.921 -41.484 -16.270  1.00123.12           N
ATOM   2157  CA  THR   279      13.517 -40.655 -17.283  1.00123.12           C
ATOM   2158  CB  THR   279      14.697 -39.842 -16.831  1.00123.12           C
ATOM   2159  OG1 THR   279      14.912 -38.766 -17.734  1.00123.12           O
ATOM   2160  CG2 THR   279      15.941 -40.744 -16.816  1.00123.12           C
ATOM   2161  C   THR   279      13.979 -41.509 -18.421  1.00123.12           C
ATOM   2162  O   THR   279      14.091 -41.033 -19.547  1.00123.12           O
ATOM   2163  N   VAL   280      14.273 -42.793 -18.158  1.00 50.90           N
ATOM   2164  CA  VAL   280      14.738 -43.702 -19.168  1.00 50.90           C
ATOM   2165  CB  VAL   280      14.931 -45.091 -18.635  1.00 50.90           C
ATOM   2166  CG1 VAL   280      15.347 -46.011 -19.793  1.00 50.90           C
ATOM   2167  CG2 VAL   280      15.950 -45.036 -17.483  1.00 50.90           C
ATOM   2168  C   VAL   280      13.716 -43.764 -20.269  1.00 50.90           C
ATOM   2169  O   VAL   280      14.042 -44.070 -21.414  1.00 50.90           O
ATOM   2170  N   VAL   281      12.435 -43.510 -19.948  1.00102.89           N
ATOM   2171  CA  VAL   281      11.388 -43.535 -20.934  1.00102.89           C
ATOM   2172  CB  VAL   281      10.016 -43.331 -20.364  1.00102.89           C
ATOM   2173  CG1 VAL   281       9.883 -41.876 -19.890  1.00102.89           C
ATOM   2174  CG2 VAL   281       8.988 -43.738 -21.432  1.00102.89           C
ATOM   2175  C   VAL   281      11.649 -42.451 -21.936  1.00102.89           C
ATOM   2176  O   VAL   281      11.173 -42.504 -23.070  1.00102.89           O
ATOM   2177  N   THR   282      12.422 -41.428 -21.538  1.00 79.13           N
ATOM   2178  CA  THR   282      12.708 -40.311 -22.391  1.00 79.13           C
ATOM   2179  CB  THR   282      13.659 -39.351 -21.732  1.00 79.13           C
ATOM   2180  OG1 THR   282      13.091 -38.856 -20.528  1.00 79.13           O
ATOM   2181  CG2 THR   282      13.954 -38.190 -22.684  1.00 79.13           C
ATOM   2182  C   THR   282      13.302 -40.837 -23.668  1.00 79.13           C
ATOM   2183  O   THR   282      13.159 -40.208 -24.715  1.00 79.13           O
ATOM   2184  N   PRO   283      14.089 -41.875 -23.596  1.00193.44           N
ATOM   2185  CA  PRO   283      14.519 -42.522 -24.815  1.00193.44           C
ATOM   2186  CD  PRO   283      15.179 -41.807 -22.630  1.00193.44           C
ATOM   2187  CB  PRO   283      15.863 -43.176 -24.501  1.00193.44           C
ATOM   2188  CG  PRO   283      16.428 -42.330 -23.351  1.00193.44           C
ATOM   2189  C   PRO   283      13.559 -43.493 -25.449  1.00193.44           C
ATOM   2190  O   PRO   283      13.853 -43.912 -26.561  1.00193.44           O
ATOM   2191  N   MET   284      12.538 -44.009 -24.730  1.00114.64           N
ATOM   2192  CA  MET   284      11.571 -44.938 -25.276  1.00114.64           C
ATOM   2193  CB  MET   284      10.828 -45.682 -24.152  1.00114.64           C
ATOM   2194  CG  MET   284       9.931 -46.831 -24.612  1.00114.64           C
ATOM   2195  SD  MET   284       9.090 -47.697 -23.251  1.00114.64           S
ATOM   2196  CE  MET   284       8.506 -49.078 -24.274  1.00114.64           C
ATOM   2197  C   MET   284      10.536 -44.288 -26.147  1.00114.64           C
ATOM   2198  O   MET   284      10.258 -44.730 -27.261  1.00114.64           O
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ATOM   2199  N   LEU   285       9.958 -43.186 -25.647  1.00 72.14           N
ATOM   2200  CA  LEU   285       8.869 -42.499 -26.274  1.00 72.14           C
ATOM   2201  CB  LEU   285       8.338 -41.370 -25.383  1.00 72.14           C
ATOM   2202  CG  LEU   285       7.839 -41.912 -24.031  1.00 72.14           C
ATOM   2203  CD1 LEU   285       7.301 -40.796 -23.129  1.00 72.14           C
ATOM   2204  CD2 LEU   285       6.822 -43.044 -24.227  1.00 72.14           C
ATOM   2205  C   LEU   285       9.361 -41.915 -27.548  1.00 72.14           C
ATOM   2206  O   LEU   285       8.605 -41.747 -28.504  1.00 72.14           O
ATOM   2207  N   ASN   286      10.651 -41.552 -27.569  1.00 76.59           N
ATOM   2208  CA  ASN   286      11.223 -40.927 -28.721  1.00 76.59           C
ATOM   2209  CB  ASN   286      12.683 -40.485 -28.484  1.00 76.59           C
ATOM   2210  CG  ASN   286      13.212 -39.830 -29.748  1.00 76.59           C
ATOM   2211  OD1 ASN   286      13.369 -40.479 -30.781  1.00 76.59           O
ATOM   2212  ND2 ASN   286      13.504 -38.504 -29.666  1.00 76.59           N
ATOM   2213  C   ASN   286      11.144 -41.841 -29.914  1.00 76.59           C
ATOM   2214  O   ASN   286      10.627 -41.418 -30.946  1.00 76.59           O
ATOM   2215  N   PRO   287      11.594 -43.068 -29.858  1.00100.78           N
ATOM   2216  CA  PRO   287      11.483 -43.926 -30.998  1.00100.78           C
ATOM   2217  CD  PRO   287      12.740 -43.437 -29.068  1.00100.78           C
ATOM   2218  CB  PRO   287      12.419 -45.114 -30.759  1.00100.78           C
ATOM   2219  CG  PRO   287      12.897 -44.942 -29.309  1.00100.78           C
ATOM   2220  C   PRO   287      10.068 -44.311 -31.250  1.00100.78           C
ATOM   2221  O   PRO   287       9.757 -44.710 -32.368  1.00100.78           O
ATOM   2222  N   PHE   288       9.200 -44.256 -30.227  1.00105.99           N
ATOM   2223  CA  PHE   288       7.835 -44.603 -30.476  1.00105.99           C
ATOM   2224  CB  PHE   288       6.979 -44.629 -29.197  1.00105.99           C
ATOM   2225  CG  PHE   288       5.549 -44.825 -29.576  1.00105.99           C
ATOM   2226  CD1 PHE   288       5.114 -46.021 -30.097  1.00105.99           C
ATOM   2227  CD2 PHE   288       4.633 -43.815 -29.381  1.00105.99           C
ATOM   2228  CE1 PHE   288       3.794 -46.199 -30.438  1.00105.99           C
ATOM   2229  CE2 PHE   288       3.311 -43.987 -29.718  1.00105.99           C
ATOM   2230  CZ  PHE   288       2.889 -45.181 -30.251  1.00105.99           C
ATOM   2231  C   PHE   288       7.247 -43.595 -31.404  1.00105.99           C
ATOM   2232  O   PHE   288       6.659 -43.947 -32.423  1.00105.99           O
ATOM   2233  N   ILE   289       7.402 -42.298 -31.086  1.00 95.27           N
ATOM   2234  CA  ILE   289       6.832 -41.294 -31.936  1.00 95.27           C
ATOM   2235  CB  ILE   289       6.854 -39.907 -31.356  1.00 95.27           C
ATOM   2236  CG2 ILE   289       6.592 -38.917 -32.504  1.00 95.27           C
ATOM   2237  CG1 ILE   289       5.823 -39.786 -30.218  1.00 95.27           C
ATOM   2238  CD1 ILE   289       6.112 -40.676 -29.012  1.00 95.27           C
ATOM   2239  C   ILE   289       7.530 -41.284 -33.256  1.00 95.27           C
ATOM   2240  O   ILE   289       6.883 -41.183 -34.296  1.00 95.27           O
ATOM   2241  N   TYR   290       8.872 -41.396 -33.252  1.00 68.11           N
ATOM   2242  CA  TYR   290       9.615 -41.370 -34.480  1.00 68.11           C
ATOM   2243  CB  TYR   290      11.142 -41.380 -34.272  1.00 68.11           C
ATOM   2244  CG  TYR   290      11.544 -39.981 -33.934  1.00 68.11           C
ATOM   2245  CD1 TYR   290      11.156 -39.381 -32.757  1.00 68.11           C
ATOM   2246  CD2 TYR   290      12.337 -39.268 -34.805  1.00 68.11           C
ATOM   2247  CE1 TYR   290      11.538 -38.088 -32.467  1.00 68.11           C
ATOM   2248  CE2 TYR   290      12.722 -37.979 -34.522  1.00 68.11           C
ATOM   2249  CZ  TYR   290      12.321 -37.385 -33.351  1.00 68.11           C
ATOM   2250  OH  TYR   290      12.714 -36.062 -33.059  1.00 68.11           O
ATOM   2251  C   TYR   290       9.222 -42.540 -35.315  1.00 68.11           C
ATOM   2252  O   TYR   290       9.069 -42.425 -36.531  1.00 68.11           O
ATOM   2253  N   SER   291       9.041 -43.703 -34.672  1.00 44.99           N
ATOM   2254  CA  SER   291       8.677 -44.896 -35.368  1.00 44.99           C
ATOM   2255  CB  SER   291       8.683 -46.146 -34.466  1.00 44.99           C
ATOM   2256  OG  SER   291       7.656 -46.069 -33.491  1.00 44.99           O
ATOM   2257  C   SER   291       7.299 -44.726 -35.923  1.00 44.99           C
ATOM   2258  O   SER   291       6.913 -45.409 -36.871  1.00 44.99           O
ATOM   2259  N   LEU   292       6.525 -43.787 -35.353  1.00129.39           N
ATOM   2260  CA  LEU   292       5.165 -43.582 -35.757  1.00129.39           C
ATOM   2261  CB  LEU   292       4.455 -42.493 -34.934  1.00129.39           C
ATOM   2262  CG  LEU   292       2.990 -42.270 -35.355  1.00129.39           C
ATOM   2263  CD1 LEU   292       2.145 -43.530 -35.123  1.00129.39           C
ATOM   2264  CD2 LEU   292       2.398 -41.023 -34.677  1.00129.39           C
ATOM   2265  C   LEU   292       5.119 -43.167 -37.196  1.00129.39           C
ATOM   2266  O   LEU   292       4.247 -43.610 -37.941  1.00129.39           O
ATOM   2267  N   ARG   293       6.054 -42.304 -37.629  1.00167.47           N
ATOM   2268  CA  ARG   293       6.016 -41.839 -38.985  1.00167.47           C
ATOM   2269  CB  ARG   293       7.092 -40.781 -39.287  1.00167.47           C
ATOM   2270  CG  ARG   293       6.776 -39.928 -40.518  1.00167.47           C
ATOM   2271  CD  ARG   293       5.461 -39.148 -40.391  1.00167.47           C
ATOM   2272  NE  ARG   293       5.390 -38.583 -39.012  1.00167.47           N
ATOM   2273  CZ  ARG   293       5.859 -37.329 -38.746  1.00167.47           C
ATOM   2274  NH1 ARG   293       6.400 -36.575 -39.748  1.00167.47           N
ATOM   2275  NH2 ARG   293       5.779 -36.826 -37.479  1.00167.47           N
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ATOM   2276  C   ARG   293       6.221 -43.016 -39.888  1.00167.47           C
ATOM   2277  O   ARG   293       5.544 -43.146 -40.906  1.00167.47           O
ATOM   2278  N   ASN   294       7.162 -43.915 -39.533  1.00 53.26           N
ATOM   2279  CA  ASN   294       7.406 -45.071 -40.351  1.00 53.26           C
ATOM   2280  CB  ASN   294       8.680 -45.841 -39.957  1.00 53.26           C
ATOM   2281  CG  ASN   294       9.893 -44.981 -40.276  1.00 53.26           C
ATOM   2282  OD1 ASN   294      10.510 -45.120 -41.331  1.00 53.26           O
ATOM   2283  ND2 ASN   294      10.250 -44.063 -39.337  1.00 53.26           N
ATOM   2284  C   ASN   294       6.258 -46.018 -40.175  1.00 53.26           C
ATOM   2285  O   ASN   294       5.837 -46.300 -39.055  1.00 53.26           O
ATOM   2286  N   GLN   295       5.683 -46.489 -41.297  1.00107.09           N
ATOM   2287  CA  GLN   295       4.602 -47.432 -41.270  1.00107.09           C
ATOM   2288  CB  GLN   295       3.868 -47.518 -42.619  1.00107.09           C
ATOM   2289  CG  GLN   295       3.226 -46.191 -43.038  1.00107.09           C
ATOM   2290  CD  GLN   295       4.335 -45.237 -43.457  1.00107.09           C
ATOM   2291  OE1 GLN   295       4.398 -44.098 -42.999  1.00107.09           O
ATOM   2292  NE2 GLN   295       5.237 -45.713 -44.357  1.00107.09           N
ATOM   2293  C   GLN   295       5.099 -48.809 -40.927  1.00107.09           C
ATOM   2294  O   GLN   295       4.454 -49.541 -40.178  1.00107.09           O
ATOM   2295  N   GLU   296       6.280 -49.187 -41.458  1.00125.43           N
ATOM   2296  CA  GLU   296       6.786 -50.535 -41.366  1.00125.43           C
ATOM   2297  CB  GLU   296       8.173 -50.663 -42.018  1.00125.43           C
ATOM   2298  CG  GLU   296       8.788 -52.061 -41.923  1.00125.43           C
ATOM   2299  CD  GLU   296       8.286 -52.884 -43.098  1.00125.43           C
ATOM   2300  OE1 GLU   296       7.054 -52.856 -43.359  1.00125.43           O
ATOM   2301  OE2 GLU   296       9.130 -53.557 -43.748  1.00125.43           O
ATOM   2302  C   GLU   296       6.969 -50.977 -39.951  1.00125.43           C
ATOM   2303  O   GLU   296       6.502 -52.041 -39.549  1.00125.43           O
ATOM   2304  N   ILE   297       7.647 -50.145 -39.154  1.00133.27           N
ATOM   2305  CA  ILE   297       7.999 -50.451 -37.803  1.00133.27           C
ATOM   2306  CB  ILE   297       9.016 -49.483 -37.286  1.00133.27           C
ATOM   2307  CG2 ILE   297      10.334 -49.732 -38.041  1.00133.27           C
ATOM   2308  CG1 ILE   297       8.515 -48.046 -37.420  1.00133.27           C
ATOM   2309  CD1 ILE   297       9.630 -47.061 -37.100  1.00133.27           C
ATOM   2310  C   ILE   297       6.787 -50.586 -36.932  1.00133.27           C
ATOM   2311  O   ILE   297       6.785 -51.374 -35.987  1.00133.27           O
ATOM   2312  N   LYS   298       5.718 -49.833 -37.232  1.00 97.35           N
ATOM   2313  CA  LYS   298       4.549 -49.804 -36.401  1.00 97.35           C
ATOM   2314  CB  LYS   298       3.439 -48.969 -37.055  1.00 97.35           C
ATOM   2315  CG  LYS   298       2.235 -48.692 -36.158  1.00 97.35           C
ATOM   2316  CD  LYS   298       1.245 -47.718 -36.799  1.00 97.35           C
ATOM   2317  CE  LYS   298       0.072 -47.338 -35.894  1.00 97.35           C
ATOM   2318  NZ  LYS   298       0.386 -46.086 -35.171  1.00 97.35           N
ATOM   2319  C   LYS   298       3.977 -51.173 -36.194  1.00 97.35           C
ATOM   2320  O   LYS   298       3.794 -51.595 -35.052  1.00 97.35           O
ATOM   2321  N   SER   299       3.699 -51.919 -37.280  1.00106.37           N
ATOM   2322  CA  SER   299       3.065 -53.192 -37.096  1.00106.37           C
ATOM   2323  CB  SER   299       2.771 -53.918 -38.421  1.00106.37           C
ATOM   2324  OG  SER   299       3.975 -54.172 -39.128  1.00106.37           O
ATOM   2325  C   SER   299       3.966 -54.039 -36.275  1.00106.37           C
ATOM   2326  O   SER   299       3.611 -54.473 -35.181  1.00106.37           O
ATOM   2327  N   SER   300       5.189 -54.276 -36.764  1.00169.44           N
ATOM   2328  CA  SER   300       6.040 -55.055 -35.935  1.00169.44           C
ATOM   2329  CB  SER   300       6.613 -56.304 -36.625  1.00169.44           C
ATOM   2330  OG  SER   300       5.569 -57.212 -36.943  1.00169.44           O
ATOM   2331  C   SER   300       7.178 -54.185 -35.575  1.00169.44           C
ATOM   2332  O   SER   300       8.008 -53.850 -36.417  1.00169.44           O
ATOM   2333  N   LEU   301       7.253 -53.788 -34.295  1.00223.41           N
ATOM   2334  CA  LEU   301       8.394 -53.012 -33.954  1.00223.41           C
ATOM   2335  CB  LEU   301       8.421 -52.513 -32.501  1.00223.41           C
ATOM   2336  CG  LEU   301       7.415 -51.385 -32.226  1.00223.41           C
ATOM   2337  CD1 LEU   301       7.817 -50.100 -32.967  1.00223.41           C
ATOM   2338  CD2 LEU   301       5.977 -51.826 -32.541  1.00223.41           C
ATOM   2339  C   LEU   301       9.516 -53.954 -34.128  1.00223.41           C
ATOM   2340  O   LEU   301       9.345 -55.158 -33.934  1.00223.41           O
ATOM   2341  N   ARG   302      10.675 -53.434 -34.563  1.00122.62           N
ATOM   2342  CA  ARG   302      11.785 -54.312 -34.718  1.00122.62           C
ATOM   2343  CB  ARG   302      13.070 -53.554 -35.093  1.00122.62           C
ATOM   2344  CG  ARG   302      14.305 -54.445 -35.235  1.00122.62           C
ATOM   2345  CD  ARG   302      15.616 -53.660 -35.342  1.00122.62           C
ATOM   2346  NE  ARG   302      15.930 -53.123 -33.987  1.00122.62           N
ATOM   2347  CZ  ARG   302      15.533 -51.864 -33.640  1.00122.62           C
ATOM   2348  NH1 ARG   302      14.886 -51.080 -34.551  1.00122.62           N
ATOM   2349  NH2 ARG   302      15.786 -51.390 -32.385  1.00122.62           N
ATOM   2350  C   ARG   302      12.001 -54.882 -33.365  1.00122.62           C
ATOM   2351  O   ARG   302      12.059 -56.097 -33.184  1.00122.62           O
ATOM   2352  N   LYS   303      12.107 -53.990 -32.368  1.00110.98           N
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ATOM   2353  CA  LYS   303      12.290 -54.465 -31.036  1.00110.98           C
ATOM   2354  CB  LYS   303      12.724 -53.364 -30.054  1.00110.98           C
ATOM   2355  CG  LYS   303      13.008 -53.885 -28.644  1.00110.98           C
ATOM   2356  CD  LYS   303      13.777 -52.890 -27.773  1.00110.98           C
ATOM   2357  CE  LYS   303      14.023 -53.391 -26.349  1.00110.98           C
ATOM   2358  NZ  LYS   303      14.864 -52.426 -25.607  1.00110.98           N
ATOM   2359  C   LYS   303      11.029 -55.062 -30.493  1.00110.98           C
ATOM   2360  O   LYS   303      11.028 -56.193 -30.011  1.00110.98           O
ATOM   2361  N   LEU   304       9.907 -54.315 -30.576  1.00181.17           N
ATOM   2362  CA  LEU   304       8.735 -54.753 -29.870  1.00181.17           C
ATOM   2363  CB  LEU   304       7.623 -53.695 -29.846  1.00181.17           C
ATOM   2364  CG  LEU   304       8.015 -52.428 -29.069  1.00181.17           C
ATOM   2365  CD1 LEU   304       6.837 -51.443 -28.989  1.00181.17           C
ATOM   2366  CD2 LEU   304       8.601 -52.781 -27.692  1.00181.17           C
ATOM   2367  C   LEU   304       8.117 -56.002 -30.401  1.00181.17           C
ATOM   2368  O   LEU   304       8.037 -57.007 -29.697  1.00181.17           O
ATOM   2369  N   ILE   305       7.683 -55.993 -31.673  1.00102.75           N
ATOM   2370  CA  ILE   305       6.949 -57.137 -32.127  1.00102.75           C
ATOM   2371  CB  ILE   305       6.260 -56.920 -33.441  1.00102.75           C
ATOM   2372  CG2 ILE   305       5.747 -58.280 -33.948  1.00102.75           C
ATOM   2373  CG1 ILE   305       5.143 -55.881 -33.258  1.00102.75           C
ATOM   2374  CD1 ILE   305       4.063 -56.330 -32.275  1.00102.75           C
ATOM   2375  C   ILE   305       7.827 -58.334 -32.236  1.00102.75           C
ATOM   2376  O   ILE   305       7.483 -59.409 -31.750  1.00102.75           O
ATOM   2377  N   TRP   306       9.007 -58.171 -32.855  1.00146.62           N
ATOM   2378  CA  TRP   306       9.832 -59.314 -33.093  1.00146.62           C
ATOM   2379  CB  TRP   306      11.118 -58.951 -33.858  1.00146.62           C
ATOM   2380  CG  TRP   306      12.027 -60.119 -34.140  1.00146.62           C
ATOM   2381  CD2 TRP   306      11.835 -61.033 -35.236  1.00146.62           C
ATOM   2382  CD1 TRP   306      13.131 -60.549 -33.468  1.00146.62           C
ATOM   2383  NE1 TRP   306      13.647 -61.667 -34.075  1.00146.62           N
ATOM   2384  CE2 TRP   306      12.857 -61.976 -35.166  1.00146.62           C
ATOM   2385  CE3 TRP   306      10.882 -61.080 -36.213  1.00146.62           C
ATOM   2386  CZ2 TRP   306      12.946 -62.989 -36.079  1.00146.62           C
ATOM   2387  CZ3 TRP   306      10.978 -62.100 -37.136  1.00146.62           C
ATOM   2388  CH2 TRP   306      11.991 -63.035 -37.070  1.00146.62           C
ATOM   2389  C   TRP   306      10.226 -59.923 -31.789  1.00146.62           C
ATOM   2390  O   TRP   306      10.000 -61.109 -31.556  1.00146.62           O
ATOM   2391  N   VAL   307      10.791 -59.109 -30.881  1.00 67.18           N
ATOM   2392  CA  VAL   307      11.298 -59.678 -29.667  1.00 67.18           C
ATOM   2393  CB  VAL   307      11.973 -58.687 -28.766  1.00 67.18           C
ATOM   2394  CG1 VAL   307      12.339 -59.404 -27.453  1.00 67.18           C
ATOM   2395  CG2 VAL   307      13.182 -58.093 -29.508  1.00 67.18           C
ATOM   2396  C   VAL   307      10.185 -60.287 -28.890  1.00 67.18           C
ATOM   2397  O   VAL   307      10.258 -61.449 -28.495  1.00 67.18           O
ATOM   2398  N   ARG   308       9.100 -59.527 -28.669  1.00228.48           N
ATOM   2399  CA  ARG   308       8.046 -60.094 -27.894  1.00228.48           C
ATOM   2400  CB  ARG   308       7.345 -59.059 -26.994  1.00228.48           C
ATOM   2401  CG  ARG   308       8.324 -58.356 -26.047  1.00228.48           C
ATOM   2402  CD  ARG   308       8.974 -59.284 -25.016  1.00228.48           C
ATOM   2403  NE  ARG   308      10.036 -58.510 -24.312  1.00228.48           N
ATOM   2404  CZ  ARG   308      10.379 -58.834 -23.030  1.00228.48           C
ATOM   2405  NH1 ARG   308       9.721 -59.837 -22.380  1.00228.48           N
ATOM   2406  NH2 ARG   308      11.381 -58.155 -22.399  1.00228.48           N
ATOM   2407  C   ARG   308       7.062 -60.613 -28.877  1.00228.48           C
ATOM   2408  O   ARG   308       6.253 -59.864 -29.421  1.00228.48           O
ATOM   2409  N   LYS   309       7.094 -61.933 -29.128  1.00167.96           N
ATOM   2410  CA  LYS   309       6.181 -62.416 -30.110  1.00167.96           C
ATOM   2411  CB  LYS   309       6.417 -63.874 -30.546  1.00167.96           C
ATOM   2412  CG  LYS   309       7.639 -64.042 -31.451  1.00167.96           C
ATOM   2413  CD  LYS   309       7.988 -65.503 -31.737  1.00167.96           C
ATOM   2414  CE  LYS   309       9.085 -65.686 -32.789  1.00167.96           C
ATOM   2415  NZ  LYS   309       9.288 -67.126 -33.061  1.00167.96           N
ATOM   2416  C   LYS   309       4.829 -62.309 -29.515  1.00167.96           C
ATOM   2417  O   LYS   309       4.446 -63.080 -28.637  1.00167.96           O
ATOM   2418  N   ILE   310       4.076 -61.305 -29.988  1.00109.67           N
ATOM   2419  CA  ILE   310       2.751 -61.118 -29.500  1.00109.67           C
ATOM   2420  CB  ILE   310       2.067 -59.902 -30.073  1.00109.67           C
ATOM   2421  CG2 ILE   310       2.837 -58.666 -29.584  1.00109.67           C
ATOM   2422  CG1 ILE   310       1.922 -59.993 -31.607  1.00109.67           C
ATOM   2423  CD1 ILE   310       0.992 -58.942 -32.216  1.00109.67           C
ATOM   2424  C   ILE   310       1.980 -62.322 -29.902  1.00109.67           C
ATOM   2425  O   ILE   310       1.239 -62.889 -29.103  1.00109.67           O
ATOM   2426  N   HIS   311       2.162 -62.763 -31.161  1.00117.79           N
ATOM   2427  CA  HIS   311       1.416 -63.890 -31.619  1.00117.79           C
ATOM   2428  ND1 HIS   311      -1.693 -64.929 -31.496  1.00117.79           N
ATOM   2429  CG  HIS   311      -0.841 -64.592 -32.524  1.00117.79           C
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ATOM   2430  CB  HIS   311       0.166 -63.488 -32.420  1.00117.79           C
ATOM   2431  NE2 HIS   311      -2.137 -66.321 -33.171  1.00117.79           N
ATOM   2432  CD2 HIS   311      -1.127 -65.450 -33.541  1.00117.79           C
ATOM   2433  CE1 HIS   311      -2.444 -65.969 -31.935  1.00117.79           C
ATOM   2434  C   HIS   311       2.307 -64.672 -32.526  1.00117.79           C
ATOM   2435  O   HIS   311       3.387 -64.215 -32.897  1.00117.79           O
ATOM   2436  N   SER   312       1.876 -65.896 -32.889  1.00167.71           N
ATOM   2437  CA  SER   312       2.676 -66.707 -33.755  1.00167.71           C
ATOM   2438  CB  SER   312       3.150 -68.020 -33.114  1.00167.71           C
ATOM   2439  OG  SER   312       4.099 -67.743 -32.096  1.00167.71           O
ATOM   2440  C   SER   312       1.836 -67.082 -34.923  1.00167.71           C
ATOM   2441  O   SER   312       0.618 -67.235 -34.831  1.00167.71           O
ATOM   2442  N   PRO   313       2.498 -67.214 -36.033  1.00140.94           N
ATOM   2443  CA  PRO   313       1.796 -67.585 -37.228  1.00140.94           C
ATOM   2444  CD  PRO   313       3.591 -66.295 -36.313  1.00140.94           C
ATOM   2445  CB  PRO   313       2.683 -67.150 -38.393  1.00140.94           C
ATOM   2446  CG  PRO   313       3.491 -65.977 -37.812  1.00140.94           C
ATOM   2447  C   PRO   313       1.509 -69.048 -37.220  1.00140.94           C
ATOM   2448  O   PRO   313       1.558 -69.655 -38.323  1.00140.94           O
ATOM   2449  OXT PRO   313       1.220 -69.599 -36.124  1.00140.94           O
TER    2450       PRO   313
END
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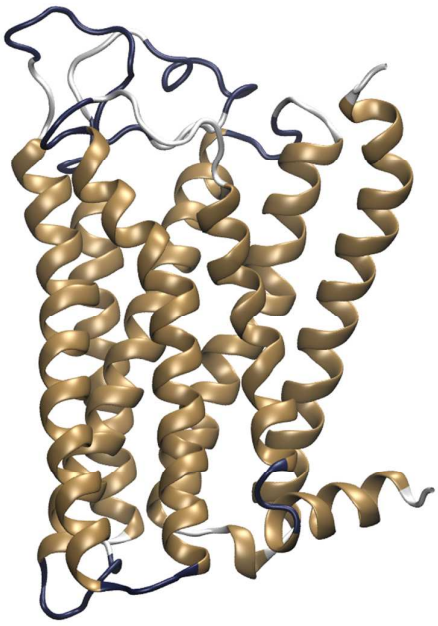
PDB and structure of OR1G1 built by homology modeling using beta 2 adrenergic receptor (PDB ID 2RH1) as template.



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ATOM      1  N   MET     1     -44.518  -5.502  51.513  1.00133.77           N
ATOM      2  CA  MET     1     -43.317  -5.603  52.374  1.00133.77           C
ATOM      3  CB  MET     1     -42.892  -4.209  52.876  1.00133.77           C
ATOM      4  CG  MET     1     -43.734  -3.612  54.013  1.00133.77           C
ATOM      5  SD  MET     1     -45.417  -3.061  53.589  1.00133.77           S
ATOM      6  CE  MET     1     -46.230  -4.670  53.814  1.00133.77           C
ATOM      7  C   MET     1     -43.576  -6.469  53.561  1.00133.77           C
ATOM      8  O   MET     1     -42.796  -6.482  54.512  1.00133.77           O
ATOM      9  N   GLU     2     -44.682  -7.233  53.528  1.00243.12           N
ATOM     10  CA  GLU     2     -45.011  -8.073  54.638  1.00243.12           C
ATOM     11  CB  GLU     2     -46.442  -8.629  54.594  1.00243.12           C
ATOM     12  CG  GLU     2     -46.912  -9.114  55.962  1.00243.12           C
ATOM     13  CD  GLU     2     -47.103  -7.850  56.782  1.00243.12           C
ATOM     14  OE1 GLU     2     -47.894  -6.979  56.333  1.00243.12           O
ATOM     15  OE2 GLU     2     -46.461  -7.732  57.859  1.00243.12           O
ATOM     16  C   GLU     2     -44.080  -9.238  54.625  1.00243.12           C
ATOM     17  O   GLU     2     -43.596  -9.648  53.571  1.00243.12           O
ATOM     18  N   GLY     3     -43.804  -9.809  55.813  1.00 86.84           N
ATOM     19  CA  GLY     3     -42.914 -10.930  55.860  1.00 86.84           C
ATOM     20  C   GLY     3     -43.576 -12.010  55.080  1.00 86.84           C
ATOM     21  O   GLY     3     -44.802 -12.070  55.005  1.00 86.84           O
ATOM     22  N   LYS     4     -42.776 -12.902  54.469  1.00216.51           N
ATOM     23  CA  LYS     4     -43.410 -13.895  53.666  1.00216.51           C
ATOM     24  CB  LYS     4     -42.484 -14.582  52.649  1.00216.51           C
ATOM     25  CG  LYS     4     -43.241 -15.529  51.714  1.00216.51           C
ATOM     26  CD  LYS     4     -42.487 -15.865  50.428  1.00216.51           C
ATOM     27  CE  LYS     4     -42.555 -14.745  49.387  1.00216.51           C
ATOM     28  NZ  LYS     4     -41.738 -15.095  48.204  1.00216.51           N
ATOM     29  C   LYS     4     -43.985 -14.944  54.549  1.00216.51           C
ATOM     30  O   LYS     4     -43.293 -15.556  55.361  1.00216.51           O
ATOM     31  N   ASN     5     -45.303 -15.147  54.395  1.00215.17           N
ATOM     32  CA  ASN     5     -46.045 -16.164  55.068  1.00215.17           C
ATOM     33  CB  ASN     5     -46.996 -15.623  56.148  1.00215.17           C
ATOM     34  CG  ASN     5     -46.116 -15.076  57.263  1.00215.17           C
ATOM     35  OD1 ASN     5     -45.368 -15.813  57.903  1.00215.17           O
ATOM     36  ND2 ASN     5     -46.191 -13.737  57.492  1.00215.17           N
ATOM     37  C   ASN     5     -46.857 -16.743  53.968  1.00215.17           C
ATOM     38  O   ASN     5     -46.827 -16.219  52.854  1.00215.17           O
ATOM     39  N   LEU     6     -47.588 -17.845  54.198  1.00234.94           N
ATOM     40  CA  LEU     6     -48.281 -18.288  53.031  1.00234.94           C
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ATOM     41  CB  LEU     6     -48.773 -19.750  53.088  1.00234.94           C
ATOM     42  CG  LEU     6     -49.144 -20.348  51.709  1.00234.94           C
ATOM     43  CD1 LEU     6     -49.708 -21.770  51.850  1.00234.94           C
ATOM     44  CD2 LEU     6     -50.050 -19.429  50.875  1.00234.94           C
ATOM     45  C   LEU     6     -49.468 -17.391  52.910  1.00234.94           C
ATOM     46  O   LEU     6     -50.496 -17.595  53.553  1.00234.94           O
ATOM     47  N   THR     7     -49.324 -16.353  52.068  1.00268.22           N
ATOM     48  CA  THR     7     -50.361 -15.401  51.816  1.00268.22           C
ATOM     49  CB  THR     7     -50.222 -14.122  52.592  1.00268.22           C
ATOM     50  OG1 THR     7     -49.048 -13.432  52.192  1.00268.22           O
ATOM     51  CG2 THR     7     -50.163 -14.449  54.095  1.00268.22           C
ATOM     52  C   THR     7     -50.200 -15.035  50.382  1.00268.22           C
ATOM     53  O   THR     7     -49.434 -15.668  49.657  1.00268.22           O
ATOM     54  N   SER     8     -50.936 -14.008  49.922  1.00158.50           N
ATOM     55  CA  SER     8     -50.751 -13.607  48.563  1.00158.50           C
ATOM     56  CB  SER     8     -51.833 -12.641  48.046  1.00158.50           C
ATOM     57  OG  SER     8     -53.082 -13.316  47.955  1.00158.50           O
ATOM     58  C   SER     8     -49.416 -12.938  48.511  1.00158.50           C
ATOM     59  O   SER     8     -48.882 -12.519  49.537  1.00158.50           O
ATOM     60  N   ILE     9     -48.825 -12.838  47.305  1.00100.13           N
ATOM     61  CA  ILE     9     -47.517 -12.260  47.207  1.00100.13           C
ATOM     62  CB  ILE     9     -46.575 -13.053  46.344  1.00100.13           C
ATOM     63  CG2 ILE     9     -45.230 -12.307  46.319  1.00100.13           C
ATOM     64  CG1 ILE     9     -46.448 -14.498  46.856  1.00100.13           C
ATOM     65  CD1 ILE     9     -45.847 -14.596  48.255  1.00100.13           C
ATOM     66  C   ILE     9     -47.675 -10.933  46.543  1.00100.13           C
ATOM     67  O   ILE     9     -48.429 -10.796  45.582  1.00100.13           O
ATOM     68  N   SER    10     -46.997  -9.897  47.074  1.00156.83           N
ATOM     69  CA  SER    10     -47.086  -8.620  46.431  1.00156.83           C
ATOM     70  CB  SER    10     -46.603  -7.450  47.306  1.00156.83           C
ATOM     71  OG  SER    10     -46.725  -6.225  46.596  1.00156.83           O
ATOM     72  C   SER    10     -46.206  -8.698  45.228  1.00156.83           C
ATOM     73  O   SER    10     -45.110  -9.251  45.286  1.00156.83           O
ATOM     74  N   GLU    11     -46.664  -8.147  44.090  1.00288.80           N
ATOM     75  CA  GLU    11     -45.857  -8.268  42.915  1.00288.80           C
ATOM     76  CB  GLU    11     -46.191  -9.538  42.120  1.00288.80           C
ATOM     77  CG  GLU    11     -45.536  -9.620  40.744  1.00288.80           C
ATOM     78  CD  GLU    11     -46.113 -10.855  40.073  1.00288.80           C
ATOM     79  OE1 GLU    11     -46.589 -11.755  40.813  1.00288.80           O
ATOM     80  OE2 GLU    11     -46.090 -10.915  38.813  1.00288.80           O
ATOM     81  C   GLU    11     -46.135  -7.110  42.019  1.00288.80           C
ATOM     82  O   GLU    11     -47.243  -6.576  41.998  1.00288.80           O
ATOM     83  N   CYS    12     -45.106  -6.670  41.271  1.00 92.28           N
ATOM     84  CA  CYS    12     -45.338  -5.652  40.294  1.00 92.28           C
ATOM     85  CB  CYS    12     -44.092  -4.836  39.911  1.00 92.28           C
ATOM     86  SG  CYS    12     -43.556  -3.722  41.244  1.00 92.28           S
ATOM     87  C   CYS    12     -45.818  -6.385  39.088  1.00 92.28           C
ATOM     88  O   CYS    12     -45.518  -7.565  38.915  1.00 92.28           O
ATOM     89  N   PHE    13     -46.596  -5.721  38.220  1.00284.45           N
ATOM     90  CA  PHE    13     -47.117  -6.494  37.138  1.00284.45           C
ATOM     91  CB  PHE    13     -48.624  -6.737  37.316  1.00284.45           C
ATOM     92  CG  PHE    13     -49.072  -7.864  36.453  1.00284.45           C
ATOM     93  CD1 PHE    13     -48.938  -9.162  36.893  1.00284.45           C
ATOM     94  CD2 PHE    13     -49.637  -7.630  35.224  1.00284.45           C
ATOM     95  CE1 PHE    13     -49.354 -10.213  36.110  1.00284.45           C
ATOM     96  CE2 PHE    13     -50.055  -8.677  34.436  1.00284.45           C
ATOM     97  CZ  PHE    13     -49.914  -9.969  34.880  1.00284.45           C
ATOM     98  C   PHE    13     -46.928  -5.728  35.870  1.00284.45           C
ATOM     99  O   PHE    13     -47.129  -4.515  35.828  1.00284.45           O
ATOM    100  N   LEU    14     -46.510  -6.426  34.799  1.00224.02           N
ATOM    101  CA  LEU    14     -46.421  -5.785  33.522  1.00224.02           C
ATOM    102  CB  LEU    14     -45.053  -5.896  32.828  1.00224.02           C
ATOM    103  CG  LEU    14     -43.958  -5.067  33.525  1.00224.02           C
ATOM    104  CD1 LEU    14     -42.639  -5.101  32.738  1.00224.02           C
ATOM    105  CD2 LEU    14     -44.437  -3.633  33.803  1.00224.02           C
ATOM    106  C   LEU    14     -47.438  -6.456  32.666  1.00224.02           C
ATOM    107  O   LEU    14     -47.543  -7.681  32.655  1.00224.02           O
ATOM    108  N   LEU    15     -48.229  -5.660  31.932  1.00197.32           N
ATOM    109  CA  LEU    15     -49.270  -6.246  31.147  1.00197.32           C
ATOM    110  CB  LEU    15     -50.516  -5.352  31.021  1.00197.32           C
ATOM    111  CG  LEU    15     -51.289  -5.148  32.336  1.00197.32           C
ATOM    112  CD1 LEU    15     -52.516  -4.247  32.124  1.00197.32           C
ATOM    113  CD2 LEU    15     -51.662  -6.497  32.969  1.00197.32           C
ATOM    114  C   LEU    15     -48.760  -6.458  29.764  1.00197.32           C
ATOM    115  O   LEU    15     -48.105  -5.592  29.188  1.00197.32           O
ATOM    116  N   GLY    16     -49.035  -7.652  29.210  1.00106.77           N
ATOM    117  CA  GLY    16     -48.705  -7.919  27.845  1.00106.77           C
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ATOM    118  C   GLY    16     -47.316  -8.447  27.730  1.00106.77           C
ATOM    119  O   GLY    16     -46.522  -8.417  28.669  1.00106.77           O
ATOM    120  N   PHE    17     -47.020  -8.950  26.518  1.00287.82           N
ATOM    121  CA  PHE    17     -45.744  -9.462  26.129  1.00287.82           C
ATOM    122  CB  PHE    17     -45.894 -10.609  25.107  1.00287.82           C
ATOM    123  CG  PHE    17     -44.586 -11.249  24.785  1.00287.82           C
ATOM    124  CD1 PHE    17     -43.704 -10.666  23.903  1.00287.82           C
ATOM    125  CD2 PHE    17     -44.260 -12.464  25.343  1.00287.82           C
ATOM    126  CE1 PHE    17     -42.505 -11.274  23.612  1.00287.82           C
ATOM    127  CE2 PHE    17     -43.063 -13.076  25.055  1.00287.82           C
ATOM    128  CZ  PHE    17     -42.184 -12.483  24.182  1.00287.82           C
ATOM    129  C   PHE    17     -45.130  -8.304  25.423  1.00287.82           C
ATOM    130  O   PHE    17     -45.783  -7.673  24.594  1.00287.82           O
ATOM    131  N   SER    18     -43.872  -7.955  25.747  1.00167.70           N
ATOM    132  CA  SER    18     -43.352  -6.813  25.062  1.00167.70           C
ATOM    133  CB  SER    18     -41.992  -6.333  25.603  1.00167.70           C
ATOM    134  OG  SER    18     -41.548  -5.194  24.875  1.00167.70           O
ATOM    135  C   SER    18     -43.172  -7.240  23.649  1.00167.70           C
ATOM    136  O   SER    18     -42.265  -8.008  23.334  1.00167.70           O
ATOM    137  N   GLU    19     -44.049  -6.747  22.754  1.00270.85           N
ATOM    138  CA  GLU    19     -43.935  -7.126  21.381  1.00270.85           C
ATOM    139  CB  GLU    19     -44.967  -8.179  20.944  1.00270.85           C
ATOM    140  CG  GLU    19     -46.421  -7.728  21.076  1.00270.85           C
ATOM    141  CD  GLU    19     -47.296  -8.946  20.808  1.00270.85           C
ATOM    142  OE1 GLU    19     -46.825 -10.081  21.082  1.00270.85           O
ATOM    143  OE2 GLU    19     -48.448  -8.757  20.338  1.00270.85           O
ATOM    144  C   GLU    19     -44.119  -5.893  20.568  1.00270.85           C
ATOM    145  O   GLU    19     -44.859  -4.987  20.948  1.00270.85           O
ATOM    146  N   GLN    20     -43.420  -5.831  19.422  1.00 83.49           N
ATOM    147  CA  GLN    20     -43.452  -4.667  18.593  1.00 83.49           C
ATOM    148  CB  GLN    20     -42.461  -4.699  17.418  1.00 83.49           C
ATOM    149  CG  GLN    20     -42.390  -3.366  16.662  1.00 83.49           C
ATOM    150  CD  GLN    20     -41.231  -3.442  15.679  1.00 83.49           C
ATOM    151  OE1 GLN    20     -41.318  -2.972  14.546  1.00 83.49           O
ATOM    152  NE2 GLN    20     -40.105  -4.057  16.130  1.00 83.49           N
ATOM    153  C   GLN    20     -44.815  -4.493  18.021  1.00 83.49           C
ATOM    154  O   GLN    20     -45.274  -3.366  17.868  1.00 83.49           O
ATOM    155  N   LEU    21     -45.514  -5.598  17.710  1.00 44.93           N
ATOM    156  CA  LEU    21     -46.769  -5.481  17.026  1.00 44.93           C
ATOM    157  CB  LEU    21     -47.426  -6.847  16.754  1.00 44.93           C
ATOM    158  CG  LEU    21     -46.672  -7.624  15.662  1.00 44.93           C
ATOM    159  CD1 LEU    21     -47.345  -8.963  15.311  1.00 44.93           C
ATOM    160  CD2 LEU    21     -46.464  -6.720  14.438  1.00 44.93           C
ATOM    161  C   LEU    21     -47.717  -4.641  17.816  1.00 44.93           C
ATOM    162  O   LEU    21     -48.337  -3.731  17.269  1.00 44.93           O
ATOM    163  N   GLU    22     -47.828  -4.886  19.128  1.00 63.51           N
ATOM    164  CA  GLU    22     -48.756  -4.111  19.898  1.00 63.51           C
ATOM    165  CB  GLU    22     -48.751  -4.508  21.382  1.00 63.51           C
ATOM    166  CG  GLU    22     -49.395  -5.868  21.638  1.00 63.51           C
ATOM    167  CD  GLU    22     -50.891  -5.665  21.486  1.00 63.51           C
ATOM    168  OE1 GLU    22     -51.285  -4.621  20.902  1.00 63.51           O
ATOM    169  OE2 GLU    22     -51.662  -6.545  21.960  1.00 63.51           O
ATOM    170  C   GLU    22     -48.337  -2.684  19.822  1.00 63.51           C
ATOM    171  O   GLU    22     -49.153  -1.783  19.630  1.00 63.51           O
ATOM    172  N   GLU    23     -47.024  -2.453  19.934  1.00 77.18           N
ATOM    173  CA  GLU    23     -46.487  -1.130  19.933  1.00 77.18           C
ATOM    174  CB  GLU    23     -44.961  -1.110  20.102  1.00 77.18           C
ATOM    175  CG  GLU    23     -44.369   0.300  20.081  1.00 77.18           C
ATOM    176  CD  GLU    23     -42.858   0.165  20.168  1.00 77.18           C
ATOM    177  OE1 GLU    23     -42.388  -0.981  20.401  1.00 77.18           O
ATOM    178  OE2 GLU    23     -42.153   1.195  19.997  1.00 77.18           O
ATOM    179  C   GLU    23     -46.772  -0.484  18.618  1.00 77.18           C
ATOM    180  O   GLU    23     -46.986   0.722  18.555  1.00 77.18           O
ATOM    181  N   GLN    24     -46.791  -1.275  17.534  1.00 52.50           N
ATOM    182  CA  GLN    24     -46.864  -0.742  16.211  1.00 52.50           C
ATOM    183  CB  GLN    24     -46.685  -1.811  15.116  1.00 52.50           C
ATOM    184  CG  GLN    24     -45.244  -2.334  15.070  1.00 52.50           C
ATOM    185  CD  GLN    24     -45.099  -3.299  13.903  1.00 52.50           C
ATOM    186  OE1 GLN    24     -46.088  -3.784  13.357  1.00 52.50           O
ATOM    187  NE2 GLN    24     -43.830  -3.587  13.506  1.00 52.50           N
ATOM    188  C   GLN    24     -48.116   0.036  15.952  1.00 52.50           C
ATOM    189  O   GLN    24     -48.050   1.078  15.303  1.00 52.50           O
ATOM    190  N   LYS    25     -49.298  -0.408  16.415  1.00128.73           N
ATOM    191  CA  LYS    25     -50.414   0.417  16.053  1.00128.73           C
ATOM    192  CB  LYS    25     -51.801  -0.176  16.362  1.00128.73           C
ATOM    193  CG  LYS    25     -52.904   0.763  15.868  1.00128.73           C
ATOM    194  CD  LYS    25     -52.831   1.022  14.360  1.00128.73           C
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ATOM    195  CE  LYS    25     -53.745   2.149  13.874  1.00128.73           C
ATOM    196  NZ  LYS    25     -53.394   2.521  12.484  1.00128.73           N
ATOM    197  C   LYS    25     -50.303   1.754  16.717  1.00128.73           C
ATOM    198  O   LYS    25     -50.466   2.786  16.055  1.00128.73           O
ATOM    199  N   PRO    26     -50.022   1.818  17.986  1.00122.81           N
ATOM    200  CA  PRO    26     -49.905   3.112  18.595  1.00122.81           C
ATOM    201  CD  PRO    26     -50.530   0.829  18.924  1.00122.81           C
ATOM    202  CB  PRO    26     -49.918   2.871  20.101  1.00122.81           C
ATOM    203  CG  PRO    26     -50.762   1.591  20.242  1.00122.81           C
ATOM    204  C   PRO    26     -48.706   3.843  18.092  1.00122.81           C
ATOM    205  O   PRO    26     -48.717   5.073  18.086  1.00122.81           O
ATOM    206  N   LEU    27     -47.658   3.099  17.701  1.00 45.29           N
ATOM    207  CA  LEU    27     -46.438   3.667  17.211  1.00 45.29           C
ATOM    208  CB  LEU    27     -45.339   2.611  16.988  1.00 45.29           C
ATOM    209  CG  LEU    27     -44.018   3.194  16.458  1.00 45.29           C
ATOM    210  CD1 LEU    27     -43.384   4.138  17.495  1.00 45.29           C
ATOM    211  CD2 LEU    27     -43.057   2.090  15.997  1.00 45.29           C
ATOM    212  C   LEU    27     -46.718   4.298  15.893  1.00 45.29           C
ATOM    213  O   LEU    27     -46.191   5.362  15.576  1.00 45.29           O
ATOM    214  N   PHE    28     -47.576   3.637  15.097  1.00 90.74           N
ATOM    215  CA  PHE    28     -47.904   4.051  13.764  1.00 90.74           C
ATOM    216  CB  PHE    28     -48.892   3.078  13.098  1.00 90.74           C
ATOM    217  CG  PHE    28     -48.991   3.380  11.639  1.00 90.74           C
ATOM    218  CD1 PHE    28     -48.002   2.961  10.777  1.00 90.74           C
ATOM    219  CD2 PHE    28     -50.078   4.052  11.130  1.00 90.74           C
ATOM    220  CE1 PHE    28     -48.088   3.227   9.433  1.00 90.74           C
ATOM    221  CE2 PHE    28     -50.170   4.322   9.786  1.00 90.74           C
ATOM    222  CZ  PHE    28     -49.172   3.910   8.935  1.00 90.74           C
ATOM    223  C   PHE    28     -48.542   5.396  13.858  1.00 90.74           C
ATOM    224  O   PHE    28     -48.202   6.309  13.109  1.00 90.74           O
ATOM    225  N   GLY    29     -49.480   5.555  14.807  1.00 85.00           N
ATOM    226  CA  GLY    29     -50.152   6.810  14.952  1.00 85.00           C
ATOM    227  C   GLY    29     -49.136   7.850  15.307  1.00 85.00           C
ATOM    228  O   GLY    29     -49.199   8.982  14.828  1.00 85.00           O
ATOM    229  N   SER    30     -48.171   7.484  16.170  1.00 87.63           N
ATOM    230  CA  SER    30     -47.168   8.403  16.629  1.00 87.63           C
ATOM    231  CB  SER    30     -46.172   7.753  17.603  1.00 87.63           C
ATOM    232  OG  SER    30     -46.842   7.321  18.777  1.00 87.63           O
ATOM    233  C   SER    30     -46.361   8.898  15.468  1.00 87.63           C
ATOM    234  O   SER    30     -46.171  10.102  15.310  1.00 87.63           O
ATOM    235  N   PHE    31     -45.861   7.980  14.622  1.00 59.51           N
ATOM    236  CA  PHE    31     -45.042   8.370  13.508  1.00 59.51           C
ATOM    237  CB  PHE    31     -44.377   7.205  12.768  1.00 59.51           C
ATOM    238  CG  PHE    31     -43.145   6.848  13.519  1.00 59.51           C
ATOM    239  CD1 PHE    31     -43.212   6.126  14.687  1.00 59.51           C
ATOM    240  CD2 PHE    31     -41.915   7.229  13.033  1.00 59.51           C
ATOM    241  CE1 PHE    31     -42.065   5.797  15.370  1.00 59.51           C
ATOM    242  CE2 PHE    31     -40.767   6.903  13.710  1.00 59.51           C
ATOM    243  CZ  PHE    31     -40.841   6.187  14.882  1.00 59.51           C
ATOM    244  C   PHE    31     -45.825   9.165  12.517  1.00 59.51           C
ATOM    245  O   PHE    31     -45.304  10.110  11.927  1.00 59.51           O
ATOM    246  N   LEU    32     -47.094   8.796  12.286  1.00128.45           N
ATOM    247  CA  LEU    32     -47.872   9.515  11.321  1.00128.45           C
ATOM    248  CB  LEU    32     -49.293   8.933  11.169  1.00128.45           C
ATOM    249  CG  LEU    32     -50.118   9.527  10.008  1.00128.45           C
ATOM    250  CD1 LEU    32     -50.448  11.012  10.218  1.00128.45           C
ATOM    251  CD2 LEU    32     -49.438   9.254   8.656  1.00128.45           C
ATOM    252  C   LEU    32     -47.979  10.923  11.819  1.00128.45           C
ATOM    253  O   LEU    32     -47.873  11.884  11.059  1.00128.45           O
ATOM    254  N   PHE    33     -48.166  11.055  13.143  1.00 91.04           N
ATOM    255  CA  PHE    33     -48.331  12.293  13.845  1.00 91.04           C
ATOM    256  CB  PHE    33     -48.534  11.980  15.342  1.00 91.04           C
ATOM    257  CG  PHE    33     -48.896  13.195  16.115  1.00 91.04           C
ATOM    258  CD1 PHE    33     -50.187  13.662  16.105  1.00 91.04           C
ATOM    259  CD2 PHE    33     -47.948  13.841  16.875  1.00 91.04           C
ATOM    260  CE1 PHE    33     -50.528  14.781  16.828  1.00 91.04           C
ATOM    261  CE2 PHE    33     -48.284  14.959  17.598  1.00 91.04           C
ATOM    262  CZ  PHE    33     -49.576  15.432  17.573  1.00 91.04           C
ATOM    263  C   PHE    33     -47.082  13.108  13.661  1.00 91.04           C
ATOM    264  O   PHE    33     -47.144  14.299  13.363  1.00 91.04           O
ATOM    265  N   MET    34     -45.906  12.472  13.819  1.00 42.21           N
ATOM    266  CA  MET    34     -44.662  13.178  13.707  1.00 42.21           C
ATOM    267  CB  MET    34     -43.441  12.339  14.109  1.00 42.21           C
ATOM    268  CG  MET    34     -43.442  11.996  15.601  1.00 42.21           C
ATOM    269  SD  MET    34     -41.957  11.127  16.177  1.00 42.21           S
ATOM    270  CE  MET    34     -40.954  12.639  16.180  1.00 42.21           C
ATOM    271  C   MET    34     -44.480  13.672  12.307  1.00 42.21           C
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ATOM    272  O   MET    34     -43.942  14.755  12.089  1.00 42.21           O
ATOM    273  N   TYR    35     -44.913  12.880  11.315  1.00154.01           N
ATOM    274  CA  TYR    35     -44.826  13.268   9.938  1.00154.01           C
ATOM    275  CB  TYR    35     -45.417  12.169   9.040  1.00154.01           C
ATOM    276  CG  TYR    35     -45.828  12.763   7.740  1.00154.01           C
ATOM    277  CD1 TYR    35     -44.911  13.101   6.777  1.00154.01           C
ATOM    278  CD2 TYR    35     -47.167  12.969   7.493  1.00154.01           C
ATOM    279  CE1 TYR    35     -45.329  13.644   5.581  1.00154.01           C
ATOM    280  CE2 TYR    35     -47.590  13.508   6.302  1.00154.01           C
ATOM    281  CZ  TYR    35     -46.669  13.846   5.345  1.00154.01           C
ATOM    282  OH  TYR    35     -47.106  14.400   4.121  1.00154.01           O
ATOM    283  C   TYR    35     -45.636  14.506   9.732  1.00154.01           C
ATOM    284  O   TYR    35     -45.180  15.467   9.112  1.00154.01           O
ATOM    285  N   LEU    36     -46.868  14.511  10.268  1.00140.83           N
ATOM    286  CA  LEU    36     -47.764  15.616  10.098  1.00140.83           C
ATOM    287  CB  LEU    36     -49.150  15.363  10.718  1.00140.83           C
ATOM    288  CG  LEU    36     -49.914  14.178  10.100  1.00140.83           C
ATOM    289  CD1 LEU    36     -51.296  14.001  10.750  1.00140.83           C
ATOM    290  CD2 LEU    36     -49.982  14.300   8.570  1.00140.83           C
ATOM    291  C   LEU    36     -47.207  16.830  10.777  1.00140.83           C
ATOM    292  O   LEU    36     -47.270  17.935  10.242  1.00140.83           O
ATOM    293  N   VAL    37     -46.647  16.671  11.987  1.00 95.27           N
ATOM    294  CA  VAL    37     -46.196  17.844  12.678  1.00 95.27           C
ATOM    295  CB  VAL    37     -45.687  17.578  14.070  1.00 95.27           C
ATOM    296  CG1 VAL    37     -46.839  17.024  14.923  1.00 95.27           C
ATOM    297  CG2 VAL    37     -44.464  16.652  13.998  1.00 95.27           C
ATOM    298  C   VAL    37     -45.097  18.496  11.901  1.00 95.27           C
ATOM    299  O   VAL    37     -45.072  19.715  11.744  1.00 95.27           O
ATOM    300  N   THR    38     -44.150  17.691  11.392  1.00125.19           N
ATOM    301  CA  THR    38     -43.011  18.207  10.700  1.00125.19           C
ATOM    302  CB  THR    38     -41.988  17.123  10.527  1.00125.19           C
ATOM    303  OG1 THR    38     -40.751  17.662  10.094  1.00125.19           O
ATOM    304  CG2 THR    38     -42.539  16.044   9.584  1.00125.19           C
ATOM    305  C   THR    38     -43.449  18.852   9.409  1.00125.19           C
ATOM    306  O   THR    38     -42.949  19.920   9.052  1.00125.19           O
ATOM    307  N   VAL    39     -44.409  18.244   8.679  1.00120.55           N
ATOM    308  CA  VAL    39     -44.885  18.801   7.435  1.00120.55           C
ATOM    309  CB  VAL    39     -45.902  17.915   6.715  1.00120.55           C
ATOM    310  CG1 VAL    39     -45.290  16.542   6.437  1.00120.55           C
ATOM    311  CG2 VAL    39     -47.205  17.765   7.512  1.00120.55           C
ATOM    312  C   VAL    39     -45.560  20.130   7.682  1.00120.55           C
ATOM    313  O   VAL    39     -45.290  21.113   6.992  1.00120.55           O
ATOM    314  N   ALA    40     -46.458  20.194   8.686  1.00 42.15           N
ATOM    315  CA  ALA    40     -47.261  21.360   8.925  1.00 42.15           C
ATOM    316  CB  ALA    40     -48.312  21.134  10.023  1.00 42.15           C
ATOM    317  C   ALA    40     -46.432  22.530   9.351  1.00 42.15           C
ATOM    318  O   ALA    40     -46.595  23.633   8.832  1.00 42.15           O
ATOM    319  N   GLY    41     -45.508  22.311  10.303  1.00 33.48           N
ATOM    320  CA  GLY    41     -44.742  23.389  10.865  1.00 33.48           C
ATOM    321  C   GLY    41     -43.851  24.002   9.834  1.00 33.48           C
ATOM    322  O   GLY    41     -43.708  25.223   9.779  1.00 33.48           O
ATOM    323  N   ASN    42     -43.204  23.154   9.013  1.00 67.32           N
ATOM    324  CA  ASN    42     -42.291  23.614   8.007  1.00 67.32           C
ATOM    325  CB  ASN    42     -41.543  22.467   7.313  1.00 67.32           C
ATOM    326  CG  ASN    42     -40.481  22.001   8.297  1.00 67.32           C
ATOM    327  OD1 ASN    42     -40.685  21.066   9.068  1.00 67.32           O
ATOM    328  ND2 ASN    42     -39.311  22.689   8.287  1.00 67.32           N
ATOM    329  C   ASN    42     -43.032  24.367   6.960  1.00 67.32           C
ATOM    330  O   ASN    42     -42.537  25.369   6.450  1.00 67.32           O
ATOM    331  N   LEU    43     -44.235  23.891   6.596  1.00 85.06           N
ATOM    332  CA  LEU    43     -45.007  24.564   5.595  1.00 85.06           C
ATOM    333  CB  LEU    43     -46.314  23.805   5.258  1.00 85.06           C
ATOM    334  CG  LEU    43     -47.235  24.441   4.184  1.00 85.06           C
ATOM    335  CD1 LEU    43     -48.328  23.456   3.731  1.00 85.06           C
ATOM    336  CD2 LEU    43     -47.877  25.756   4.668  1.00 85.06           C
ATOM    337  C   LEU    43     -45.327  25.932   6.116  1.00 85.06           C
ATOM    338  O   LEU    43     -45.263  26.915   5.383  1.00 85.06           O
ATOM    339  N   LEU    44     -45.656  26.033   7.416  1.00102.04           N
ATOM    340  CA  LEU    44     -46.049  27.287   8.004  1.00102.04           C
ATOM    341  CB  LEU    44     -46.490  27.116   9.476  1.00102.04           C
ATOM    342  CG  LEU    44     -47.181  28.327  10.146  1.00102.04           C
ATOM    343  CD1 LEU    44     -47.609  27.963  11.576  1.00102.04           C
ATOM    344  CD2 LEU    44     -46.330  29.607  10.118  1.00102.04           C
ATOM    345  C   LEU    44     -44.893  28.250   7.934  1.00102.04           C
ATOM    346  O   LEU    44     -45.084  29.439   7.683  1.00102.04           O
ATOM    347  N   ILE    45     -43.661  27.756   8.164  1.00 49.97           N
ATOM    348  CA  ILE    45     -42.473  28.570   8.164  1.00 49.97           C
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ATOM    349  CB  ILE    45     -41.242  27.770   8.474  1.00 49.97           C
ATOM    350  CG2 ILE    45     -40.030  28.707   8.338  1.00 49.97           C
ATOM    351  CG1 ILE    45     -41.352  27.081   9.843  1.00 49.97           C
ATOM    352  CD1 ILE    45     -40.298  25.991  10.035  1.00 49.97           C
ATOM    353  C   ILE    45     -42.231  29.125   6.794  1.00 49.97           C
ATOM    354  O   ILE    45     -41.929  30.305   6.634  1.00 49.97           O
ATOM    355  N   ILE    46     -42.334  28.271   5.760  1.00102.49           N
ATOM    356  CA  ILE    46     -42.047  28.700   4.423  1.00102.49           C
ATOM    357  CB  ILE    46     -42.016  27.563   3.441  1.00102.49           C
ATOM    358  CG2 ILE    46     -40.820  26.664   3.796  1.00102.49           C
ATOM    359  CG1 ILE    46     -43.363  26.830   3.403  1.00102.49           C
ATOM    360  CD1 ILE    46     -43.447  25.774   2.304  1.00102.49           C
ATOM    361  C   ILE    46     -43.040  29.732   3.986  1.00102.49           C
ATOM    362  O   ILE    46     -42.659  30.738   3.389  1.00102.49           O
ATOM    363  N   LEU    47     -44.338  29.518   4.277  1.00147.30           N
ATOM    364  CA  LEU    47     -45.347  30.456   3.871  1.00147.30           C
ATOM    365  CB  LEU    47     -46.789  29.988   4.146  1.00147.30           C
ATOM    366  CG  LEU    47     -47.320  28.959   3.127  1.00147.30           C
ATOM    367  CD1 LEU    47     -47.566  29.617   1.758  1.00147.30           C
ATOM    368  CD2 LEU    47     -46.412  27.724   3.031  1.00147.30           C
ATOM    369  C   LEU    47     -45.158  31.777   4.556  1.00147.30           C
ATOM    370  O   LEU    47     -45.297  32.822   3.923  1.00147.30           O
ATOM    371  N   VAL    48     -44.828  31.784   5.863  1.00 96.83           N
ATOM    372  CA  VAL    48     -44.715  33.036   6.562  1.00 96.83           C
ATOM    373  CB  VAL    48     -44.433  32.885   8.036  1.00 96.83           C
ATOM    374  CG1 VAL    48     -45.600  32.128   8.696  1.00 96.83           C
ATOM    375  CG2 VAL    48     -43.063  32.219   8.222  1.00 96.83           C
ATOM    376  C   VAL    48     -43.618  33.862   5.955  1.00 96.83           C
ATOM    377  O   VAL    48     -43.778  35.067   5.764  1.00 96.83           O
ATOM    378  N   ILE    49     -42.467  33.235   5.639  1.00 96.66           N
ATOM    379  CA  ILE    49     -41.340  33.930   5.079  1.00 96.66           C
ATOM    380  CB  ILE    49     -40.168  33.022   4.845  1.00 96.66           C
ATOM    381  CG2 ILE    49     -39.068  33.846   4.152  1.00 96.66           C
ATOM    382  CG1 ILE    49     -39.709  32.358   6.153  1.00 96.66           C
ATOM    383  CD1 ILE    49     -39.208  33.343   7.205  1.00 96.66           C
ATOM    384  C   ILE    49     -41.707  34.457   3.728  1.00 96.66           C
ATOM    385  O   ILE    49     -41.419  35.609   3.402  1.00 96.66           O
ATOM    386  N   ILE    50     -42.350  33.609   2.901  1.00129.37           N
ATOM    387  CA  ILE    50     -42.683  33.990   1.558  1.00129.37           C
ATOM    388  CB  ILE    50     -43.237  32.851   0.731  1.00129.37           C
ATOM    389  CG2 ILE    50     -44.601  32.421   1.300  1.00129.37           C
ATOM    390  CG1 ILE    50     -43.306  33.254  -0.753  1.00129.37           C
ATOM    391  CD1 ILE    50     -41.940  33.530  -1.380  1.00129.37           C
ATOM    392  C   ILE    50     -43.681  35.113   1.553  1.00129.37           C
ATOM    393  O   ILE    50     -43.525  36.071   0.799  1.00129.37           O
ATOM    394  N   THR    51     -44.740  35.019   2.383  1.00109.35           N
ATOM    395  CA  THR    51     -45.801  35.991   2.372  1.00109.35           C
ATOM    396  CB  THR    51     -47.022  35.554   3.133  1.00109.35           C
ATOM    397  OG1 THR    51     -48.079  36.481   2.933  1.00109.35           O
ATOM    398  CG2 THR    51     -46.678  35.450   4.628  1.00109.35           C
ATOM    399  C   THR    51     -45.399  37.331   2.912  1.00109.35           C
ATOM    400  O   THR    51     -45.710  38.354   2.303  1.00109.35           O
ATOM    401  N   ASP    52     -44.690  37.376   4.060  1.00 46.98           N
ATOM    402  CA  ASP    52     -44.441  38.652   4.666  1.00 46.98           C
ATOM    403  CB  ASP    52     -44.601  38.644   6.194  1.00 46.98           C
ATOM    404  CG  ASP    52     -46.094  38.596   6.488  1.00 46.98           C
ATOM    405  OD1 ASP    52     -46.889  38.848   5.545  1.00 46.98           O
ATOM    406  OD2 ASP    52     -46.455  38.313   7.662  1.00 46.98           O
ATOM    407  C   ASP    52     -43.075  39.151   4.329  1.00 46.98           C
ATOM    408  O   ASP    52     -42.066  38.501   4.593  1.00 46.98           O
ATOM    409  N   THR    53     -43.041  40.365   3.749  1.00 32.05           N
ATOM    410  CA  THR    53     -41.841  41.009   3.302  1.00 32.05           C
ATOM    411  CB  THR    53     -42.089  42.316   2.615  1.00 32.05           C
ATOM    412  OG1 THR    53     -42.939  42.124   1.496  1.00 32.05           O
ATOM    413  CG2 THR    53     -40.734  42.881   2.155  1.00 32.05           C
ATOM    414  C   THR    53     -40.971  41.294   4.479  1.00 32.05           C
ATOM    415  O   THR    53     -39.748  41.219   4.385  1.00 32.05           O
ATOM    416  N   GLN    54     -41.578  41.629   5.630  1.00 50.65           N
ATOM    417  CA  GLN    54     -40.776  41.955   6.769  1.00 50.65           C
ATOM    418  CB  GLN    54     -41.601  42.313   8.017  1.00 50.65           C
ATOM    419  CG  GLN    54     -42.290  43.679   7.944  1.00 50.65           C
ATOM    420  CD  GLN    54     -42.978  43.913   9.282  1.00 50.65           C
ATOM    421  OE1 GLN    54     -43.070  45.042   9.761  1.00 50.65           O
ATOM    422  NE2 GLN    54     -43.471  42.811   9.909  1.00 50.65           N
ATOM    423  C   GLN    54     -39.917  40.774   7.105  1.00 50.65           C
ATOM    424  O   GLN    54     -38.757  40.936   7.478  1.00 50.65           O
ATOM    425  N   LEU    55     -40.463  39.552   6.992  1.00118.81           N
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ATOM    426  CA  LEU    55     -39.727  38.361   7.312  1.00118.81           C
ATOM    427  CB  LEU    55     -40.583  37.088   7.478  1.00118.81           C
ATOM    428  CG  LEU    55     -41.499  37.141   8.720  1.00118.81           C
ATOM    429  CD1 LEU    55     -42.654  38.134   8.530  1.00118.81           C
ATOM    430  CD2 LEU    55     -41.963  35.743   9.156  1.00118.81           C
ATOM    431  C   LEU    55     -38.639  38.092   6.318  1.00118.81           C
ATOM    432  O   LEU    55     -37.693  37.378   6.640  1.00118.81           O
ATOM    433  N   HIS    56     -38.756  38.592   5.068  1.00 76.23           N
ATOM    434  CA  HIS    56     -37.739  38.269   4.104  1.00 76.23           C
ATOM    435  ND1 HIS    56     -38.586  36.182   1.807  1.00 76.23           N
ATOM    436  CG  HIS    56     -38.979  37.490   2.005  1.00 76.23           C
ATOM    437  CB  HIS    56     -38.105  38.540   2.629  1.00 76.23           C
ATOM    438  NE2 HIS    56     -40.649  36.353   0.997  1.00 76.23           N
ATOM    439  CD2 HIS    56     -40.241  37.574   1.505  1.00 76.23           C
ATOM    440  CE1 HIS    56     -39.621  35.548   1.202  1.00 76.23           C
ATOM    441  C   HIS    56     -36.470  39.008   4.385  1.00 76.23           C
ATOM    442  O   HIS    56     -36.306  40.179   4.046  1.00 76.23           O
ATOM    443  N   THR    57     -35.524  38.301   5.029  1.00 56.98           N
ATOM    444  CA  THR    57     -34.217  38.834   5.247  1.00 56.98           C
ATOM    445  CB  THR    57     -33.912  39.262   6.658  1.00 56.98           C
ATOM    446  OG1 THR    57     -33.844  38.137   7.516  1.00 56.98           O
ATOM    447  CG2 THR    57     -35.015  40.219   7.146  1.00 56.98           C
ATOM    448  C   THR    57     -33.300  37.708   4.898  1.00 56.98           C
ATOM    449  O   THR    57     -33.760  36.597   4.613  1.00 56.98           O
ATOM    450  N   PRO    58     -32.026  37.949   4.870  1.00153.67           N
ATOM    451  CA  PRO    58     -31.110  36.908   4.502  1.00153.67           C
ATOM    452  CD  PRO    58     -31.523  39.268   4.525  1.00153.67           C
ATOM    453  CB  PRO    58     -29.764  37.597   4.317  1.00153.67           C
ATOM    454  CG  PRO    58     -30.146  39.024   3.887  1.00153.67           C
ATOM    455  C   PRO    58     -31.109  35.730   5.429  1.00153.67           C
ATOM    456  O   PRO    58     -31.002  34.602   4.949  1.00153.67           O
ATOM    457  N   MET    59     -31.257  35.955   6.747  1.00 77.83           N
ATOM    458  CA  MET    59     -31.232  34.871   7.687  1.00 77.83           C
ATOM    459  CB  MET    59     -31.365  35.356   9.139  1.00 77.83           C
ATOM    460  CG  MET    59     -30.179  36.214   9.582  1.00 77.83           C
ATOM    461  SD  MET    59     -30.415  37.052  11.175  1.00 77.83           S
ATOM    462  CE  MET    59     -31.649  38.225  10.542  1.00 77.83           C
ATOM    463  C   MET    59     -32.388  33.969   7.388  1.00 77.83           C
ATOM    464  O   MET    59     -32.253  32.746   7.374  1.00 77.83           O
ATOM    465  N   TYR    60     -33.551  34.573   7.093  1.00 75.75           N
ATOM    466  CA  TYR    60     -34.782  33.888   6.821  1.00 75.75           C
ATOM    467  CB  TYR    60     -35.983  34.846   6.720  1.00 75.75           C
ATOM    468  CG  TYR    60     -36.219  35.309   8.124  1.00 75.75           C
ATOM    469  CD1 TYR    60     -35.293  36.114   8.742  1.00 75.75           C
ATOM    470  CD2 TYR    60     -37.350  34.958   8.827  1.00 75.75           C
ATOM    471  CE1 TYR    60     -35.470  36.559  10.030  1.00 75.75           C
ATOM    472  CE2 TYR    60     -37.537  35.399  10.120  1.00 75.75           C
ATOM    473  CZ  TYR    60     -36.599  36.201  10.726  1.00 75.75           C
ATOM    474  OH  TYR    60     -36.787  36.655  12.050  1.00 75.75           O
ATOM    475  C   TYR    60     -34.646  33.061   5.579  1.00 75.75           C
ATOM    476  O   TYR    60     -35.313  32.036   5.452  1.00 75.75           O
ATOM    477  N   PHE    61     -33.835  33.507   4.599  1.00 57.26           N
ATOM    478  CA  PHE    61     -33.625  32.705   3.422  1.00 57.26           C
ATOM    479  CB  PHE    61     -32.712  33.357   2.368  1.00 57.26           C
ATOM    480  CG  PHE    61     -33.531  34.222   1.474  1.00 57.26           C
ATOM    481  CD1 PHE    61     -33.985  35.456   1.876  1.00 57.26           C
ATOM    482  CD2 PHE    61     -33.825  33.776   0.206  1.00 57.26           C
ATOM    483  CE1 PHE    61     -34.736  36.226   1.017  1.00 57.26           C
ATOM    484  CE2 PHE    61     -34.572  34.543  -0.655  1.00 57.26           C
ATOM    485  CZ  PHE    61     -35.029  35.772  -0.246  1.00 57.26           C
ATOM    486  C   PHE    61     -32.978  31.416   3.820  1.00 57.26           C
ATOM    487  O   PHE    61     -33.360  30.351   3.338  1.00 57.26           O
ATOM    488  N   PHE    62     -31.969  31.476   4.708  1.00 57.85           N
ATOM    489  CA  PHE    62     -31.295  30.280   5.129  1.00 57.85           C
ATOM    490  CB  PHE    62     -30.066  30.533   6.022  1.00 57.85           C
ATOM    491  CG  PHE    62     -29.039  31.265   5.219  1.00 57.85           C
ATOM    492  CD1 PHE    62     -28.446  30.691   4.116  1.00 57.85           C
ATOM    493  CD2 PHE    62     -28.634  32.529   5.596  1.00 57.85           C
ATOM    494  CE1 PHE    62     -27.494  31.373   3.392  1.00 57.85           C
ATOM    495  CE2 PHE    62     -27.683  33.215   4.878  1.00 57.85           C
ATOM    496  CZ  PHE    62     -27.111  32.639   3.770  1.00 57.85           C
ATOM    497  C   PHE    62     -32.269  29.437   5.894  1.00 57.85           C
ATOM    498  O   PHE    62     -32.241  28.210   5.809  1.00 57.85           O
ATOM    499  N   LEU    63     -33.146  30.091   6.679  1.00 89.03           N
ATOM    500  CA  LEU    63     -34.132  29.424   7.484  1.00 89.03           C
ATOM    501  CB  LEU    63     -34.982  30.445   8.280  1.00 89.03           C
ATOM    502  CG  LEU    63     -35.990  29.884   9.312  1.00 89.03           C
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ATOM    503  CD1 LEU    63     -36.694  31.036  10.047  1.00 89.03           C
ATOM    504  CD2 LEU    63     -37.012  28.912   8.699  1.00 89.03           C
ATOM    505  C   LEU    63     -35.023  28.666   6.552  1.00 89.03           C
ATOM    506  O   LEU    63     -35.397  27.527   6.828  1.00 89.03           O
ATOM    507  N   ALA    64     -35.384  29.288   5.415  1.00 29.43           N
ATOM    508  CA  ALA    64     -36.244  28.656   4.460  1.00 29.43           C
ATOM    509  CB  ALA    64     -36.548  29.562   3.256  1.00 29.43           C
ATOM    510  C   ALA    64     -35.555  27.429   3.949  1.00 29.43           C
ATOM    511  O   ALA    64     -36.173  26.376   3.812  1.00 29.43           O
ATOM    512  N   ASN    65     -34.241  27.531   3.668  1.00 45.25           N
ATOM    513  CA  ASN    65     -33.504  26.418   3.140  1.00 45.25           C
ATOM    514  CB  ASN    65     -32.072  26.794   2.716  1.00 45.25           C
ATOM    515  CG  ASN    65     -31.502  25.675   1.848  1.00 45.25           C
ATOM    516  OD1 ASN    65     -31.806  24.499   2.037  1.00 45.25           O
ATOM    517  ND2 ASN    65     -30.641  26.055   0.866  1.00 45.25           N
ATOM    518  C   ASN    65     -33.489  25.332   4.184  1.00 45.25           C
ATOM    519  O   ASN    65     -33.543  24.147   3.858  1.00 45.25           O
ATOM    520  N   LEU    66     -33.405  25.711   5.474  1.00160.34           N
ATOM    521  CA  LEU    66     -33.457  24.759   6.550  1.00160.34           C
ATOM    522  CB  LEU    66     -33.341  25.398   7.942  1.00160.34           C
ATOM    523  CG  LEU    66     -31.944  25.926   8.291  1.00160.34           C
ATOM    524  CD1 LEU    66     -31.915  26.530   9.703  1.00160.34           C
ATOM    525  CD2 LEU    66     -30.891  24.826   8.108  1.00160.34           C
ATOM    526  C   LEU    66     -34.809  24.104   6.540  1.00160.34           C
ATOM    527  O   LEU    66     -34.923  22.895   6.734  1.00160.34           O
ATOM    528  N   SER    67     -35.871  24.904   6.320  1.00 85.06           N
ATOM    529  CA  SER    67     -37.228  24.426   6.359  1.00 85.06           C
ATOM    530  CB  SER    67     -38.280  25.542   6.182  1.00 85.06           C
ATOM    531  OG  SER    67     -39.590  25.003   6.227  1.00 85.06           O
ATOM    532  C   SER    67     -37.460  23.428   5.264  1.00 85.06           C
ATOM    533  O   SER    67     -38.232  22.490   5.450  1.00 85.06           O
ATOM    534  N   LEU    68     -36.832  23.624   4.086  1.00132.79           N
ATOM    535  CA  LEU    68     -37.014  22.717   2.982  1.00132.79           C
ATOM    536  CB  LEU    68     -36.392  23.201   1.660  1.00132.79           C
ATOM    537  CG  LEU    68     -36.608  22.201   0.505  1.00132.79           C
ATOM    538  CD1 LEU    68     -38.104  22.000   0.219  1.00132.79           C
ATOM    539  CD2 LEU    68     -35.831  22.611  -0.754  1.00132.79           C
ATOM    540  C   LEU    68     -36.403  21.379   3.283  1.00132.79           C
ATOM    541  O   LEU    68     -37.001  20.343   2.995  1.00132.79           O
ATOM    542  N   ALA    69     -35.193  21.364   3.873  1.00 46.60           N
ATOM    543  CA  ALA    69     -34.516  20.126   4.142  1.00 46.60           C
ATOM    544  CB  ALA    69     -33.136  20.329   4.789  1.00 46.60           C
ATOM    545  C   ALA    69     -35.367  19.353   5.088  1.00 46.60           C
ATOM    546  O   ALA    69     -35.514  18.137   4.984  1.00 46.60           O
ATOM    547  N   ASP    70     -35.946  20.076   6.050  1.00123.57           N
ATOM    548  CA  ASP    70     -36.804  19.560   7.063  1.00123.57           C
ATOM    549  CB  ASP    70     -37.190  20.744   7.948  1.00123.57           C
ATOM    550  CG  ASP    70     -37.618  20.210   9.272  1.00123.57           C
ATOM    551  OD1 ASP    70     -38.590  19.408   9.274  1.00123.57           O
ATOM    552  OD2 ASP    70     -36.962  20.584  10.280  1.00123.57           O
ATOM    553  C   ASP    70     -38.037  19.010   6.408  1.00123.57           C
ATOM    554  O   ASP    70     -38.485  17.913   6.729  1.00123.57           O
ATOM    555  N   ALA    71     -38.609  19.773   5.454  1.00 43.00           N
ATOM    556  CA  ALA    71     -39.809  19.387   4.763  1.00 43.00           C
ATOM    557  CB  ALA    71     -40.293  20.461   3.774  1.00 43.00           C
ATOM    558  C   ALA    71     -39.546  18.145   3.965  1.00 43.00           C
ATOM    559  O   ALA    71     -40.376  17.245   3.902  1.00 43.00           O
ATOM    560  N   CYS    72     -38.380  18.054   3.314  1.00 38.84           N
ATOM    561  CA  CYS    72     -38.093  16.908   2.501  1.00 38.84           C
ATOM    562  CB  CYS    72     -36.771  17.079   1.743  1.00 38.84           C
ATOM    563  SG  CYS    72     -36.815  18.501   0.606  1.00 38.84           S
ATOM    564  C   CYS    72     -38.010  15.706   3.389  1.00 38.84           C
ATOM    565  O   CYS    72     -38.405  14.603   3.019  1.00 38.84           O
ATOM    566  N   PHE    73     -37.487  15.908   4.606  1.00 97.87           N
ATOM    567  CA  PHE    73     -37.338  14.883   5.592  1.00 97.87           C
ATOM    568  CB  PHE    73     -36.713  15.485   6.861  1.00 97.87           C
ATOM    569  CG  PHE    73     -36.253  14.402   7.762  1.00 97.87           C
ATOM    570  CD1 PHE    73     -35.130  13.677   7.435  1.00 97.87           C
ATOM    571  CD2 PHE    73     -36.913  14.137   8.937  1.00 97.87           C
ATOM    572  CE1 PHE    73     -34.682  12.679   8.260  1.00 97.87           C
ATOM    573  CE2 PHE    73     -36.468  13.140   9.768  1.00 97.87           C
ATOM    574  CZ  PHE    73     -35.355  12.411   9.427  1.00 97.87           C
ATOM    575  C   PHE    73     -38.713  14.375   5.922  1.00 97.87           C
ATOM    576  O   PHE    73     -38.938  13.167   6.003  1.00 97.87           O
ATOM    577  N   VAL    74     -39.676  15.300   6.096  1.00134.78           N
ATOM    578  CA  VAL    74     -41.010  14.963   6.509  1.00134.78           C
ATOM    579  CB  VAL    74     -41.896  16.187   6.703  1.00134.78           C
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ATOM    580  CG1 VAL    74     -41.049  17.258   7.378  1.00134.78           C
ATOM    581  CG2 VAL    74     -42.559  16.711   5.423  1.00134.78           C
ATOM    582  C   VAL    74     -41.648  14.108   5.452  1.00134.78           C
ATOM    583  O   VAL    74     -42.361  13.159   5.766  1.00134.78           O
ATOM    584  N   SER    75     -41.465  14.482   4.169  1.00101.97           N
ATOM    585  CA  SER    75     -42.072  13.798   3.069  1.00101.97           C
ATOM    586  CB  SER    75     -42.146  14.688   1.818  1.00101.97           C
ATOM    587  OG  SER    75     -42.736  13.976   0.742  1.00101.97           O
ATOM    588  C   SER    75     -41.355  12.538   2.686  1.00101.97           C
ATOM    589  O   SER    75     -41.905  11.442   2.775  1.00101.97           O
ATOM    590  N   THR    76     -40.111  12.696   2.186  1.00144.99           N
ATOM    591  CA  THR    76     -39.347  11.603   1.647  1.00144.99           C
ATOM    592  CB  THR    76     -38.194  12.061   0.793  1.00144.99           C
ATOM    593  OG1 THR    76     -37.274  12.817   1.561  1.00144.99           O
ATOM    594  CG2 THR    76     -38.739  12.897  -0.379  1.00144.99           C
ATOM    595  C   THR    76     -38.784  10.644   2.660  1.00144.99           C
ATOM    596  O   THR    76     -38.900   9.432   2.488  1.00144.99           O
ATOM    597  N   THR    77     -38.077  11.157   3.691  1.00 71.84           N
ATOM    598  CA  THR    77     -37.392  10.299   4.625  1.00 71.84           C
ATOM    599  CB  THR    77     -36.268  11.003   5.320  1.00 71.84           C
ATOM    600  OG1 THR    77     -35.335  11.483   4.362  1.00 71.84           O
ATOM    601  CG2 THR    77     -35.588  10.001   6.270  1.00 71.84           C
ATOM    602  C   THR    77     -38.236   9.656   5.692  1.00 71.84           C
ATOM    603  O   THR    77     -38.235   8.438   5.855  1.00 71.84           O
ATOM    604  N   VAL    78     -39.009  10.467   6.431  1.00 61.76           N
ATOM    605  CA  VAL    78     -39.678  10.005   7.616  1.00 61.76           C
ATOM    606  CB  VAL    78     -40.387  11.117   8.329  1.00 61.76           C
ATOM    607  CG1 VAL    78     -41.157  10.516   9.516  1.00 61.76           C
ATOM    608  CG2 VAL    78     -39.355  12.187   8.729  1.00 61.76           C
ATOM    609  C   VAL    78     -40.690   8.939   7.333  1.00 61.76           C
ATOM    610  O   VAL    78     -40.753   7.953   8.070  1.00 61.76           O
ATOM    611  N   PRO    79     -41.500   9.073   6.326  1.00 78.58           N
ATOM    612  CA  PRO    79     -42.528   8.096   6.112  1.00 78.58           C
ATOM    613  CD  PRO    79     -41.844  10.368   5.763  1.00 78.58           C
ATOM    614  CB  PRO    79     -43.409   8.662   5.001  1.00 78.58           C
ATOM    615  CG  PRO    79     -43.248  10.188   5.159  1.00 78.58           C
ATOM    616  C   PRO    79     -42.005   6.720   5.838  1.00 78.58           C
ATOM    617  O   PRO    79     -42.606   5.758   6.308  1.00 78.58           O
ATOM    618  N   LYS    80     -40.908   6.611   5.064  1.00122.82           N
ATOM    619  CA  LYS    80     -40.327   5.351   4.689  1.00122.82           C
ATOM    620  CB  LYS    80     -39.243   5.489   3.605  1.00122.82           C
ATOM    621  CG  LYS    80     -39.754   6.112   2.302  1.00122.82           C
ATOM    622  CD  LYS    80     -40.891   5.347   1.624  1.00122.82           C
ATOM    623  CE  LYS    80     -41.429   6.075   0.390  1.00122.82           C
ATOM    624  NZ  LYS    80     -42.008   7.377   0.793  1.00122.82           N
ATOM    625  C   LYS    80     -39.694   4.707   5.880  1.00122.82           C
ATOM    626  O   LYS    80     -39.787   3.494   6.062  1.00122.82           O
ATOM    627  N   MET    81     -39.029   5.516   6.728  1.00102.46           N
ATOM    628  CA  MET    81     -38.350   5.007   7.884  1.00102.46           C
ATOM    629  CB  MET    81     -37.711   6.130   8.726  1.00102.46           C
ATOM    630  CG  MET    81     -37.124   5.657  10.060  1.00102.46           C
ATOM    631  SD  MET    81     -36.373   6.967  11.078  1.00102.46           S
ATOM    632  CE  MET    81     -34.796   7.029  10.181  1.00102.46           C
ATOM    633  C   MET    81     -39.370   4.354   8.755  1.00102.46           C
ATOM    634  O   MET    81     -39.154   3.257   9.269  1.00102.46           O
ATOM    635  N   LEU    82     -40.523   5.023   8.921  1.00134.59           N
ATOM    636  CA  LEU    82     -41.574   4.523   9.753  1.00134.59           C
ATOM    637  CB  LEU    82     -42.775   5.477   9.817  1.00134.59           C
ATOM    638  CG  LEU    82     -44.004   4.845  10.493  1.00134.59           C
ATOM    639  CD1 LEU    82     -43.715   4.431  11.943  1.00134.59           C
ATOM    640  CD2 LEU    82     -45.234   5.753  10.350  1.00134.59           C
ATOM    641  C   LEU    82     -42.088   3.230   9.209  1.00134.59           C
ATOM    642  O   LEU    82     -42.251   2.261   9.948  1.00134.59           O
ATOM    643  N   ALA    83     -42.334   3.177   7.889  1.00 32.99           N
ATOM    644  CA  ALA    83     -42.877   2.001   7.276  1.00 32.99           C
ATOM    645  CB  ALA    83     -43.076   2.149   5.758  1.00 32.99           C
ATOM    646  C   ALA    83     -41.904   0.893   7.478  1.00 32.99           C
ATOM    647  O   ALA    83     -42.290  -0.242   7.753  1.00 32.99           O
ATOM    648  N   ASN    84     -40.603   1.224   7.378  1.00 48.77           N
ATOM    649  CA  ASN    84     -39.557   0.252   7.459  1.00 48.77           C
ATOM    650  CB  ASN    84     -38.172   0.934   7.518  1.00 48.77           C
ATOM    651  CG  ASN    84     -37.065  -0.111   7.520  1.00 48.77           C
ATOM    652  OD1 ASN    84     -37.299  -1.290   7.262  1.00 48.77           O
ATOM    653  ND2 ASN    84     -35.819   0.336   7.831  1.00 48.77           N
ATOM    654  C   ASN    84     -39.745  -0.498   8.734  1.00 48.77           C
ATOM    655  O   ASN    84     -39.783  -1.727   8.734  1.00 48.77           O
ATOM    656  N   ILE    85     -39.881   0.228   9.856  1.00 47.39           N
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ATOM    657  CA  ILE    85     -40.070  -0.422  11.118  1.00 47.39           C
ATOM    658  CB  ILE    85     -39.917   0.515  12.280  1.00 47.39           C
ATOM    659  CG2 ILE    85     -40.339  -0.225  13.560  1.00 47.39           C
ATOM    660  CG1 ILE    85     -38.475   1.048  12.321  1.00 47.39           C
ATOM    661  CD1 ILE    85     -38.272   2.193  13.310  1.00 47.39           C
ATOM    662  C   ILE    85     -41.432  -1.054  11.197  1.00 47.39           C
ATOM    663  O   ILE    85     -41.557  -2.210  11.597  1.00 47.39           O
ATOM    664  N   GLN    86     -42.489  -0.324  10.782  1.00106.17           N
ATOM    665  CA  GLN    86     -43.831  -0.812  10.971  1.00106.17           C
ATOM    666  CB  GLN    86     -44.906   0.149  10.427  1.00106.17           C
ATOM    667  CG  GLN    86     -45.118   1.392  11.296  1.00106.17           C
ATOM    668  CD  GLN    86     -45.998   0.991  12.474  1.00106.17           C
ATOM    669  OE1 GLN    86     -46.044   1.678  13.494  1.00106.17           O
ATOM    670  NE2 GLN    86     -46.727  -0.148  12.331  1.00106.17           N
ATOM    671  C   GLN    86     -44.005  -2.108  10.263  1.00106.17           C
ATOM    672  O   GLN    86     -44.436  -3.092  10.862  1.00106.17           O
ATOM    673  N   ILE    87     -43.643  -2.153   8.970  1.00209.99           N
ATOM    674  CA  ILE    87     -43.744  -3.381   8.250  1.00209.99           C
ATOM    675  CB  ILE    87     -44.337  -3.215   6.875  1.00209.99           C
ATOM    676  CG2 ILE    87     -44.145  -4.515   6.078  1.00209.99           C
ATOM    677  CG1 ILE    87     -45.803  -2.768   6.991  1.00209.99           C
ATOM    678  CD1 ILE    87     -46.408  -2.310   5.665  1.00209.99           C
ATOM    679  C   ILE    87     -42.338  -3.817   8.099  1.00209.99           C
ATOM    680  O   ILE    87     -41.583  -3.250   7.312  1.00209.99           O
ATOM    681  N   GLN    88     -41.942  -4.839   8.875  1.00202.54           N
ATOM    682  CA  GLN    88     -40.573  -5.225   8.785  1.00202.54           C
ATOM    683  CB  GLN    88     -40.155  -6.288   9.814  1.00202.54           C
ATOM    684  CG  GLN    88     -40.236  -5.770  11.249  1.00202.54           C
ATOM    685  CD  GLN    88     -39.801  -6.885  12.183  1.00202.54           C
ATOM    686  OE1 GLN    88     -40.307  -8.005  12.111  1.00202.54           O
ATOM    687  NE2 GLN    88     -38.830  -6.572  13.081  1.00202.54           N
ATOM    688  C   GLN    88     -40.395  -5.772   7.423  1.00202.54           C
ATOM    689  O   GLN    88     -41.116  -6.683   7.019  1.00202.54           O
ATOM    690  N   SER    89     -39.441  -5.155   6.697  1.00 91.96           N
ATOM    691  CA  SER    89     -39.029  -5.435   5.353  1.00 91.96           C
ATOM    692  CB  SER    89     -39.839  -6.517   4.619  1.00 91.96           C
ATOM    693  OG  SER    89     -39.611  -7.772   5.243  1.00 91.96           O
ATOM    694  C   SER    89     -39.166  -4.136   4.632  1.00 91.96           C
ATOM    695  O   SER    89     -39.650  -3.160   5.206  1.00 91.96           O
ATOM    696  N   GLN    90     -38.708  -4.072   3.370  1.00126.71           N
ATOM    697  CA  GLN    90     -38.852  -2.851   2.633  1.00126.71           C
ATOM    698  CB  GLN    90     -37.522  -2.244   2.158  1.00126.71           C
ATOM    699  CG  GLN    90     -36.702  -1.588   3.271  1.00126.71           C
ATOM    700  CD  GLN    90     -37.041  -0.103   3.288  1.00126.71           C
ATOM    701  OE1 GLN    90     -37.868   0.355   4.075  1.00126.71           O
ATOM    702  NE2 GLN    90     -36.379   0.679   2.393  1.00126.71           N
ATOM    703  C   GLN    90     -39.670  -3.146   1.422  1.00126.71           C
ATOM    704  O   GLN    90     -39.307  -3.982   0.596  1.00126.71           O
ATOM    705  N   ALA    91     -40.830  -2.474   1.328  1.00 67.40           N
ATOM    706  CA  ALA    91     -41.739  -2.574   0.224  1.00 67.40           C
ATOM    707  CB  ALA    91     -43.075  -1.851   0.472  1.00 67.40           C
ATOM    708  C   ALA    91     -41.102  -1.959  -0.978  1.00 67.40           C
ATOM    709  O   ALA    91     -41.302  -2.411  -2.105  1.00 67.40           O
ATOM    710  N   ILE    92     -40.303  -0.901  -0.751  1.00281.31           N
ATOM    711  CA  ILE    92     -39.701  -0.158  -1.820  1.00281.31           C
ATOM    712  CB  ILE    92     -39.441   1.281  -1.442  1.00281.31           C
ATOM    713  CG2 ILE    92     -38.370   1.327  -0.338  1.00281.31           C
ATOM    714  CG1 ILE    92     -39.111   2.131  -2.677  1.00281.31           C
ATOM    715  CD1 ILE    92     -39.142   3.635  -2.399  1.00281.31           C
ATOM    716  C   ILE    92     -38.401  -0.826  -2.152  1.00281.31           C
ATOM    717  O   ILE    92     -37.597  -1.129  -1.275  1.00281.31           O
ATOM    718  N   SER    93     -38.175  -1.051  -3.464  1.00165.95           N
ATOM    719  CA  SER    93     -37.101  -1.811  -4.048  1.00165.95           C
ATOM    720  CB  SER    93     -37.100  -1.776  -5.589  1.00165.95           C
ATOM    721  OG  SER    93     -38.316  -2.296  -6.102  1.00165.95           O
ATOM    722  C   SER    93     -35.757  -1.299  -3.637  1.00165.95           C
ATOM    723  O   SER    93     -35.629  -0.467  -2.739  1.00165.95           O
ATOM    724  N   TYR    94     -34.711  -1.855  -4.294  1.00132.20           N
ATOM    725  CA  TYR    94     -33.343  -1.519  -4.020  1.00132.20           C
ATOM    726  CB  TYR    94     -32.354  -2.068  -5.059  1.00132.20           C
ATOM    727  CG  TYR    94     -32.411  -3.545  -5.161  1.00132.20           C
ATOM    728  CD1 TYR    94     -33.431  -4.164  -5.841  1.00132.20           C
ATOM    729  CD2 TYR    94     -31.415  -4.306  -4.600  1.00132.20           C
ATOM    730  CE1 TYR    94     -33.479  -5.533  -5.952  1.00132.20           C
ATOM    731  CE2 TYR    94     -31.458  -5.673  -4.708  1.00132.20           C
ATOM    732  CZ  TYR    94     -32.483  -6.287  -5.379  1.00132.20           C
ATOM    733  OH  TYR    94     -32.514  -7.692  -5.485  1.00132.20           O
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ATOM    734  C   TYR    94     -33.236  -0.062  -4.257  1.00132.20           C
ATOM    735  O   TYR    94     -32.756   0.691  -3.412  1.00132.20           O
ATOM    736  N   SER    95     -33.704   0.376  -5.438  1.00168.15           N
ATOM    737  CA  SER    95     -33.664   1.780  -5.671  1.00168.15           C
ATOM    738  CB  SER    95     -34.097   2.207  -7.087  1.00168.15           C
ATOM    739  OG  SER    95     -35.468   1.906  -7.307  1.00168.15           O
ATOM    740  C   SER    95     -34.649   2.291  -4.691  1.00168.15           C
ATOM    741  O   SER    95     -35.524   1.567  -4.250  1.00168.15           O
ATOM    742  N   GLY    96     -34.531   3.526  -4.229  1.00226.83           N
ATOM    743  CA  GLY    96     -35.528   3.913  -3.286  1.00226.83           C
ATOM    744  C   GLY    96     -34.947   3.652  -1.931  1.00226.83           C
ATOM    745  O   GLY    96     -34.966   4.522  -1.066  1.00226.83           O
ATOM    746  N   CYS    97     -34.423   2.428  -1.705  1.00 83.41           N
ATOM    747  CA  CYS    97     -33.737   2.151  -0.474  1.00 83.41           C
ATOM    748  CB  CYS    97     -33.282   0.682  -0.342  1.00 83.41           C
ATOM    749  SG  CYS    97     -32.031   0.432   0.960  1.00 83.41           S
ATOM    750  C   CYS    97     -32.504   2.980  -0.511  1.00 83.41           C
ATOM    751  O   CYS    97     -32.177   3.702   0.429  1.00 83.41           O
ATOM    752  N   LEU    98     -31.802   2.867  -1.653  1.00136.56           N
ATOM    753  CA  LEU    98     -30.579   3.544  -1.956  1.00136.56           C
ATOM    754  CB  LEU    98     -29.995   3.019  -3.283  1.00136.56           C
ATOM    755  CG  LEU    98     -28.692   3.681  -3.771  1.00136.56           C
ATOM    756  CD1 LEU    98     -28.959   5.082  -4.342  1.00136.56           C
ATOM    757  CD2 LEU    98     -27.612   3.677  -2.680  1.00136.56           C
ATOM    758  C   LEU    98     -30.866   5.000  -2.092  1.00136.56           C
ATOM    759  O   LEU    98     -30.110   5.841  -1.604  1.00136.56           O
ATOM    760  N   LEU    99     -31.978   5.325  -2.779  1.00 54.58           N
ATOM    761  CA  LEU    99     -32.335   6.695  -3.019  1.00 54.58           C
ATOM    762  CB  LEU    99     -33.572   6.803  -3.926  1.00 54.58           C
ATOM    763  CG  LEU    99     -33.934   8.245  -4.312  1.00 54.58           C
ATOM    764  CD1 LEU    99     -32.862   8.852  -5.233  1.00 54.58           C
ATOM    765  CD2 LEU    99     -35.352   8.330  -4.897  1.00 54.58           C
ATOM    766  C   LEU    99     -32.682   7.358  -1.720  1.00 54.58           C
ATOM    767  O   LEU    99     -32.212   8.454  -1.419  1.00 54.58           O
ATOM    768  N   GLN   100     -33.512   6.678  -0.904  1.00 77.96           N
ATOM    769  CA  GLN   100     -33.995   7.218   0.335  1.00 77.96           C
ATOM    770  CB  GLN   100     -35.059   6.331   1.010  1.00 77.96           C
ATOM    771  CG  GLN   100     -35.593   6.902   2.328  1.00 77.96           C
ATOM    772  CD  GLN   100     -34.702   6.412   3.460  1.00 77.96           C
ATOM    773  OE1 GLN   100     -34.627   5.215   3.730  1.00 77.96           O
ATOM    774  NE2 GLN   100     -34.006   7.362   4.143  1.00 77.96           N
ATOM    775  C   GLN   100     -32.843   7.400   1.267  1.00 77.96           C
ATOM    776  O   GLN   100     -32.774   8.385   2.002  1.00 77.96           O
ATOM    777  N   LEU   101     -31.887   6.456   1.242  1.00137.13           N
ATOM    778  CA  LEU   101     -30.748   6.507   2.114  1.00137.13           C
ATOM    779  CB  LEU   101     -29.814   5.309   1.844  1.00137.13           C
ATOM    780  CG  LEU   101     -28.663   5.073   2.846  1.00137.13           C
ATOM    781  CD1 LEU   101     -27.824   3.861   2.421  1.00137.13           C
ATOM    782  CD2 LEU   101     -27.794   6.318   3.063  1.00137.13           C
ATOM    783  C   LEU   101     -30.013   7.777   1.799  1.00137.13           C
ATOM    784  O   LEU   101     -29.584   8.504   2.694  1.00137.13           O
ATOM    785  N   TYR   102     -29.881   8.075   0.493  1.00175.40           N
ATOM    786  CA  TYR   102     -29.209   9.230  -0.039  1.00175.40           C
ATOM    787  CB  TYR   102     -29.178   9.125  -1.572  1.00175.40           C
ATOM    788  CG  TYR   102     -29.277  10.467  -2.196  1.00175.40           C
ATOM    789  CD1 TYR   102     -28.195  11.299  -2.375  1.00175.40           C
ATOM    790  CD2 TYR   102     -30.519  10.873  -2.620  1.00175.40           C
ATOM    791  CE1 TYR   102     -28.378  12.527  -2.970  1.00175.40           C
ATOM    792  CE2 TYR   102     -30.706  12.094  -3.213  1.00175.40           C
ATOM    793  CZ  TYR   102     -29.627  12.925  -3.390  1.00175.40           C
ATOM    794  OH  TYR   102     -29.811  14.183  -4.000  1.00175.40           O
ATOM    795  C   TYR   102     -29.882  10.503   0.389  1.00175.40           C
ATOM    796  O   TYR   102     -29.209  11.460   0.774  1.00175.40           O
ATOM    797  N   PHE   103     -31.226  10.558   0.331  1.00 98.11           N
ATOM    798  CA  PHE   103     -31.911  11.773   0.675  1.00 98.11           C
ATOM    799  CB  PHE   103     -33.409  11.771   0.358  1.00 98.11           C
ATOM    800  CG  PHE   103     -33.732  13.209   0.511  1.00 98.11           C
ATOM    801  CD1 PHE   103     -33.492  14.068  -0.536  1.00 98.11           C
ATOM    802  CD2 PHE   103     -34.237  13.698   1.693  1.00 98.11           C
ATOM    803  CE1 PHE   103     -33.763  15.406  -0.421  1.00 98.11           C
ATOM    804  CE2 PHE   103     -34.512  15.040   1.815  1.00 98.11           C
ATOM    805  CZ  PHE   103     -34.275  15.887   0.760  1.00 98.11           C
ATOM    806  C   PHE   103     -31.763  12.050   2.138  1.00 98.11           C
ATOM    807  O   PHE   103     -31.638  13.204   2.553  1.00 98.11           O
ATOM    808  N   PHE   104     -31.788  10.990   2.965  1.00 52.16           N
ATOM    809  CA  PHE   104     -31.676  11.154   4.385  1.00 52.16           C
ATOM    810  CB  PHE   104     -31.625   9.804   5.118  1.00 52.16           C
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ATOM    811  CG  PHE   104     -31.214  10.058   6.528  1.00 52.16           C
ATOM    812  CD1 PHE   104     -32.126  10.442   7.483  1.00 52.16           C
ATOM    813  CD2 PHE   104     -29.896   9.901   6.888  1.00 52.16           C
ATOM    814  CE1 PHE   104     -31.725  10.668   8.781  1.00 52.16           C
ATOM    815  CE2 PHE   104     -29.489  10.125   8.181  1.00 52.16           C
ATOM    816  CZ  PHE   104     -30.405  10.510   9.130  1.00 52.16           C
ATOM    817  C   PHE   104     -30.395  11.865   4.683  1.00 52.16           C
ATOM    818  O   PHE   104     -30.382  12.858   5.408  1.00 52.16           O
ATOM    819  N   MET   105     -29.287  11.385   4.092  1.00 48.35           N
ATOM    820  CA  MET   105     -27.970  11.914   4.313  1.00 48.35           C
ATOM    821  CB  MET   105     -26.917  11.166   3.482  1.00 48.35           C
ATOM    822  CG  MET   105     -26.743   9.695   3.863  1.00 48.35           C
ATOM    823  SD  MET   105     -25.834   8.705   2.637  1.00 48.35           S
ATOM    824  CE  MET   105     -24.285   9.640   2.771  1.00 48.35           C
ATOM    825  C   MET   105     -27.923  13.340   3.846  1.00 48.35           C
ATOM    826  O   MET   105     -27.318  14.195   4.490  1.00 48.35           O
ATOM    827  N   LEU   106     -28.561  13.624   2.696  1.00 59.53           N
ATOM    828  CA  LEU   106     -28.532  14.914   2.065  1.00 59.53           C
ATOM    829  CB  LEU   106     -29.357  14.884   0.768  1.00 59.53           C
ATOM    830  CG  LEU   106     -29.308  16.156  -0.090  1.00 59.53           C
ATOM    831  CD1 LEU   106     -27.924  16.338  -0.733  1.00 59.53           C
ATOM    832  CD2 LEU   106     -30.459  16.168  -1.110  1.00 59.53           C
ATOM    833  C   LEU   106     -29.162  15.925   2.978  1.00 59.53           C
ATOM    834  O   LEU   106     -28.587  16.974   3.258  1.00 59.53           O
ATOM    835  N   PHE   107     -30.347  15.601   3.520  1.00116.96           N
ATOM    836  CA  PHE   107     -31.107  16.488   4.363  1.00116.96           C
ATOM    837  CB  PHE   107     -32.422  15.851   4.843  1.00116.96           C
ATOM    838  CG  PHE   107     -32.771  16.456   6.163  1.00116.96           C
ATOM    839  CD1 PHE   107     -33.139  17.775   6.288  1.00116.96           C
ATOM    840  CD2 PHE   107     -32.738  15.671   7.294  1.00116.96           C
ATOM    841  CE1 PHE   107     -33.460  18.301   7.518  1.00116.96           C
ATOM    842  CE2 PHE   107     -33.057  16.187   8.527  1.00116.96           C
ATOM    843  CZ  PHE   107     -33.420  17.509   8.639  1.00116.96           C
ATOM    844  C   PHE   107     -30.351  16.860   5.588  1.00116.96           C
ATOM    845  O   PHE   107     -30.322  18.032   5.962  1.00116.96           O
ATOM    846  N   VAL   108     -29.748  15.866   6.259  1.00107.52           N
ATOM    847  CA  VAL   108     -29.033  16.140   7.466  1.00107.52           C
ATOM    848  CB  VAL   108     -28.542  14.906   8.166  1.00107.52           C
ATOM    849  CG1 VAL   108     -27.708  14.056   7.198  1.00107.52           C
ATOM    850  CG2 VAL   108     -27.728  15.369   9.382  1.00107.52           C
ATOM    851  C   VAL   108     -27.843  17.007   7.180  1.00107.52           C
ATOM    852  O   VAL   108     -27.555  17.934   7.935  1.00107.52           O
ATOM    853  N   MET   109     -27.120  16.720   6.078  1.00113.01           N
ATOM    854  CA  MET   109     -25.919  17.425   5.719  1.00113.01           C
ATOM    855  CB  MET   109     -25.297  16.860   4.434  1.00113.01           C
ATOM    856  CG  MET   109     -23.891  17.377   4.135  1.00113.01           C
ATOM    857  SD  MET   109     -23.209  16.776   2.562  1.00113.01           S
ATOM    858  CE  MET   109     -23.452  15.020   2.954  1.00113.01           C
ATOM    859  C   MET   109     -26.237  18.861   5.439  1.00113.01           C
ATOM    860  O   MET   109     -25.549  19.770   5.901  1.00113.01           O
ATOM    861  N   LEU   110     -27.321  19.080   4.678  1.00114.29           N
ATOM    862  CA  LEU   110     -27.768  20.372   4.253  1.00114.29           C
ATOM    863  CB  LEU   110     -29.050  20.199   3.403  1.00114.29           C
ATOM    864  CG  LEU   110     -29.736  21.445   2.804  1.00114.29           C
ATOM    865  CD1 LEU   110     -30.981  20.991   2.043  1.00114.29           C
ATOM    866  CD2 LEU   110     -30.110  22.521   3.831  1.00114.29           C
ATOM    867  C   LEU   110     -28.103  21.172   5.475  1.00114.29           C
ATOM    868  O   LEU   110     -27.752  22.344   5.582  1.00114.29           O
ATOM    869  N   GLU   111     -28.799  20.556   6.448  1.00 84.58           N
ATOM    870  CA  GLU   111     -29.242  21.338   7.565  1.00 84.58           C
ATOM    871  CB  GLU   111     -30.115  20.555   8.559  1.00 84.58           C
ATOM    872  CG  GLU   111     -30.722  21.443   9.651  1.00 84.58           C
ATOM    873  CD  GLU   111     -31.486  20.544  10.611  1.00 84.58           C
ATOM    874  OE1 GLU   111     -32.138  19.581  10.129  1.00 84.58           O
ATOM    875  OE2 GLU   111     -31.421  20.806  11.842  1.00 84.58           O
ATOM    876  C   GLU   111     -28.077  21.878   8.337  1.00 84.58           C
ATOM    877  O   GLU   111     -28.038  23.065   8.656  1.00 84.58           O
ATOM    878  N   ALA   112     -27.087  21.020   8.644  1.00 41.11           N
ATOM    879  CA  ALA   112     -25.968  21.422   9.448  1.00 41.11           C
ATOM    880  CB  ALA   112     -25.003  20.261   9.736  1.00 41.11           C
ATOM    881  C   ALA   112     -25.193  22.476   8.737  1.00 41.11           C
ATOM    882  O   ALA   112     -24.782  23.459   9.352  1.00 41.11           O
ATOM    883  N   PHE   113     -24.982  22.299   7.418  1.00142.59           N
ATOM    884  CA  PHE   113     -24.199  23.230   6.660  1.00142.59           C
ATOM    885  CB  PHE   113     -23.882  22.753   5.234  1.00142.59           C
ATOM    886  CG  PHE   113     -22.723  21.828   5.384  1.00142.59           C
ATOM    887  CD1 PHE   113     -22.889  20.490   5.670  1.00142.59           C
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ATOM    888  CD2 PHE   113     -21.449  22.328   5.251  1.00142.59           C
ATOM    889  CE1 PHE   113     -21.793  19.669   5.805  1.00142.59           C
ATOM    890  CE2 PHE   113     -20.352  21.514   5.386  1.00142.59           C
ATOM    891  CZ  PHE   113     -20.523  20.180   5.666  1.00142.59           C
ATOM    892  C   PHE   113     -24.863  24.570   6.638  1.00142.59           C
ATOM    893  O   PHE   113     -24.193  25.593   6.765  1.00142.59           O
ATOM    894  N   LEU   114     -26.197  24.608   6.475  1.00 53.06           N
ATOM    895  CA  LEU   114     -26.886  25.867   6.495  1.00 53.06           C
ATOM    896  CB  LEU   114     -28.394  25.742   6.240  1.00 53.06           C
ATOM    897  CG  LEU   114     -28.797  25.664   4.760  1.00 53.06           C
ATOM    898  CD1 LEU   114     -28.006  24.593   3.993  1.00 53.06           C
ATOM    899  CD2 LEU   114     -30.315  25.467   4.663  1.00 53.06           C
ATOM    900  C   LEU   114     -26.715  26.505   7.838  1.00 53.06           C
ATOM    901  O   LEU   114     -26.461  27.705   7.933  1.00 53.06           O
ATOM    902  N   LEU   115     -26.822  25.712   8.919  1.00 52.49           N
ATOM    903  CA  LEU   115     -26.707  26.265  10.237  1.00 52.49           C
ATOM    904  CB  LEU   115     -26.740  25.206  11.356  1.00 52.49           C
ATOM    905  CG  LEU   115     -28.120  24.570  11.572  1.00 52.49           C
ATOM    906  CD1 LEU   115     -28.108  23.546  12.719  1.00 52.49           C
ATOM    907  CD2 LEU   115     -29.170  25.664  11.780  1.00 52.49           C
ATOM    908  C   LEU   115     -25.372  26.921  10.347  1.00 52.49           C
ATOM    909  O   LEU   115     -25.258  28.017  10.891  1.00 52.49           O
ATOM    910  N   ALA   116     -24.325  26.262   9.824  1.00 32.11           N
ATOM    911  CA  ALA   116     -22.995  26.787   9.907  1.00 32.11           C
ATOM    912  CB  ALA   116     -21.934  25.865   9.291  1.00 32.11           C
ATOM    913  C   ALA   116     -22.933  28.082   9.162  1.00 32.11           C
ATOM    914  O   ALA   116     -22.264  29.017   9.595  1.00 32.11           O
ATOM    915  N   VAL   117     -23.623  28.157   8.008  1.00 31.87           N
ATOM    916  CA  VAL   117     -23.618  29.332   7.183  1.00 31.87           C
ATOM    917  CB  VAL   117     -24.400  29.144   5.915  1.00 31.87           C
ATOM    918  CG1 VAL   117     -24.374  30.451   5.102  1.00 31.87           C
ATOM    919  CG2 VAL   117     -23.813  27.937   5.167  1.00 31.87           C
ATOM    920  C   VAL   117     -24.237  30.458   7.943  1.00 31.87           C
ATOM    921  O   VAL   117     -23.794  31.601   7.842  1.00 31.87           O
ATOM    922  N   MET   118     -25.298  30.168   8.716  1.00 44.75           N
ATOM    923  CA  MET   118     -25.968  31.193   9.457  1.00 44.75           C
ATOM    924  CB  MET   118     -27.262  30.682  10.103  1.00 44.75           C
ATOM    925  CG  MET   118     -28.225  30.174   9.026  1.00 44.75           C
ATOM    926  SD  MET   118     -29.811  29.533   9.628  1.00 44.75           S
ATOM    927  CE  MET   118     -30.476  31.174  10.023  1.00 44.75           C
ATOM    928  C   MET   118     -25.044  31.751  10.504  1.00 44.75           C
ATOM    929  O   MET   118     -25.046  32.953  10.761  1.00 44.75           O
ATOM    930  N   ALA   119     -24.234  30.887  11.147  1.00 32.78           N
ATOM    931  CA  ALA   119     -23.325  31.314  12.178  1.00 32.78           C
ATOM    932  CB  ALA   119     -22.598  30.138  12.853  1.00 32.78           C
ATOM    933  C   ALA   119     -22.276  32.228  11.609  1.00 32.78           C
ATOM    934  O   ALA   119     -21.898  33.223  12.225  1.00 32.78           O
ATOM    935  N   TYR   120     -21.746  31.902  10.419  1.00135.64           N
ATOM    936  CA  TYR   120     -20.732  32.733   9.834  1.00135.64           C
ATOM    937  CB  TYR   120     -20.172  32.142   8.528  1.00135.64           C
ATOM    938  CG  TYR   120     -19.085  33.014   7.995  1.00135.64           C
ATOM    939  CD1 TYR   120     -17.778  32.807   8.380  1.00135.64           C
ATOM    940  CD2 TYR   120     -19.365  34.031   7.110  1.00135.64           C
ATOM    941  CE1 TYR   120     -16.767  33.599   7.890  1.00135.64           C
ATOM    942  CE2 TYR   120     -18.356  34.828   6.617  1.00135.64           C
ATOM    943  CZ  TYR   120     -17.058  34.611   7.008  1.00135.64           C
ATOM    944  OH  TYR   120     -16.020  35.423   6.506  1.00135.64           O
ATOM    945  C   TYR   120     -21.357  34.053   9.500  1.00135.64           C
ATOM    946  O   TYR   120     -20.782  35.108   9.760  1.00135.64           O
ATOM    947  N   ASP   121     -22.574  34.012   8.922  1.00 48.08           N
ATOM    948  CA  ASP   121     -23.263  35.187   8.468  1.00 48.08           C
ATOM    949  CB  ASP   121     -24.590  34.836   7.776  1.00 48.08           C
ATOM    950  CG  ASP   121     -25.024  36.020   6.925  1.00 48.08           C
ATOM    951  OD1 ASP   121     -24.285  37.037   6.881  1.00 48.08           O
ATOM    952  OD2 ASP   121     -26.106  35.907   6.297  1.00 48.08           O
ATOM    953  C   ASP   121     -23.564  36.080   9.636  1.00 48.08           C
ATOM    954  O   ASP   121     -23.397  37.295   9.550  1.00 48.08           O
ATOM    955  N   CYS   122     -24.017  35.505  10.766  1.00 87.53           N
ATOM    956  CA  CYS   122     -24.336  36.306  11.916  1.00 87.53           C
ATOM    957  CB  CYS   122     -25.045  35.533  13.048  1.00 87.53           C
ATOM    958  SG  CYS   122     -24.020  34.257  13.829  1.00 87.53           S
ATOM    959  C   CYS   122     -23.083  36.917  12.466  1.00 87.53           C
ATOM    960  O   CYS   122     -23.106  38.020  13.010  1.00 87.53           O
ATOM    961  N   TYR   123     -21.948  36.204  12.360  1.00 56.64           N
ATOM    962  CA  TYR   123     -20.712  36.714  12.879  1.00 56.64           C
ATOM    963  CB  TYR   123     -19.559  35.719  12.638  1.00 56.64           C
ATOM    964  CG  TYR   123     -18.238  36.368  12.884  1.00 56.64           C
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ATOM    965  CD1 TYR   123     -17.746  36.542  14.158  1.00 56.64           C
ATOM    966  CD2 TYR   123     -17.475  36.786  11.815  1.00 56.64           C
ATOM    967  CE1 TYR   123     -16.521  37.138  14.360  1.00 56.64           C
ATOM    968  CE2 TYR   123     -16.251  37.381  12.011  1.00 56.64           C
ATOM    969  CZ  TYR   123     -15.772  37.556  13.286  1.00 56.64           C
ATOM    970  OH  TYR   123     -14.515  38.166  13.490  1.00 56.64           O
ATOM    971  C   TYR   123     -20.388  37.995  12.174  1.00 56.64           C
ATOM    972  O   TYR   123     -20.105  39.004  12.818  1.00 56.64           O
ATOM    973  N   VAL   124     -20.448  38.002  10.827  1.00 94.21           N
ATOM    974  CA  VAL   124     -20.118  39.192  10.092  1.00 94.21           C
ATOM    975  CB  VAL   124     -20.068  38.999   8.605  1.00 94.21           C
ATOM    976  CG1 VAL   124     -18.952  37.992   8.292  1.00 94.21           C
ATOM    977  CG2 VAL   124     -21.460  38.586   8.097  1.00 94.21           C
ATOM    978  C   VAL   124     -21.133  40.252  10.366  1.00 94.21           C
ATOM    979  O   VAL   124     -20.799  41.428  10.499  1.00 94.21           O
ATOM    980  N   ALA   125     -22.415  39.865  10.460  1.00 34.81           N
ATOM    981  CA  ALA   125     -23.433  40.855  10.634  1.00 34.81           C
ATOM    982  CB  ALA   125     -24.836  40.232  10.725  1.00 34.81           C
ATOM    983  C   ALA   125     -23.192  41.601  11.909  1.00 34.81           C
ATOM    984  O   ALA   125     -23.245  42.830  11.931  1.00 34.81           O
ATOM    985  N   ILE   126     -22.901  40.875  13.005  1.00 74.99           N
ATOM    986  CA  ILE   126     -22.731  41.489  14.295  1.00 74.99           C
ATOM    987  CB  ILE   126     -22.759  40.520  15.450  1.00 74.99           C
ATOM    988  CG2 ILE   126     -21.480  39.666  15.427  1.00 74.99           C
ATOM    989  CG1 ILE   126     -22.982  41.285  16.769  1.00 74.99           C
ATOM    990  CD1 ILE   126     -23.432  40.395  17.927  1.00 74.99           C
ATOM    991  C   ILE   126     -21.490  42.331  14.365  1.00 74.99           C
ATOM    992  O   ILE   126     -21.463  43.334  15.077  1.00 74.99           O
ATOM    993  N   CYS   127     -20.397  41.896  13.706  1.00 96.39           N
ATOM    994  CA  CYS   127     -19.150  42.617  13.726  1.00 96.39           C
ATOM    995  CB  CYS   127     -17.954  41.794  13.198  1.00 96.39           C
ATOM    996  SG  CYS   127     -18.102  41.320  11.451  1.00 96.39           S
ATOM    997  C   CYS   127     -19.203  43.906  12.945  1.00 96.39           C
ATOM    998  O   CYS   127     -18.605  44.900  13.355  1.00 96.39           O
ATOM    999  N   HIS   128     -19.920  43.943  11.804  1.00100.00           N
ATOM   1000  CA  HIS   128     -19.838  45.097  10.942  1.00100.00           C
ATOM   1001  ND1 HIS   128     -17.938  44.592   8.620  1.00100.00           N
ATOM   1002  CG  HIS   128     -19.229  44.122   8.723  1.00100.00           C
ATOM   1003  CB  HIS   128     -20.295  44.842   9.497  1.00100.00           C
ATOM   1004  NE2 HIS   128     -18.018  42.698   7.460  1.00100.00           N
ATOM   1005  CD2 HIS   128     -19.263  42.964   8.009  1.00100.00           C
ATOM   1006  CE1 HIS   128     -17.258  43.700   7.853  1.00100.00           C
ATOM   1007  C   HIS   128     -20.513  46.325  11.476  1.00100.00           C
ATOM   1008  O   HIS   128     -21.463  46.275  12.259  1.00100.00           O
ATOM   1009  N   PRO   129     -19.974  47.455  11.066  1.00144.23           N
ATOM   1010  CA  PRO   129     -20.449  48.764  11.429  1.00144.23           C
ATOM   1011  CD  PRO   129     -18.950  47.502  10.035  1.00144.23           C
ATOM   1012  CB  PRO   129     -19.513  49.755  10.738  1.00144.23           C
ATOM   1013  CG  PRO   129     -18.964  48.960   9.540  1.00144.23           C
ATOM   1014  C   PRO   129     -21.884  48.923  11.036  1.00144.23           C
ATOM   1015  O   PRO   129     -22.608  49.614  11.752  1.00144.23           O
ATOM   1016  N   LEU   130     -22.314  48.348   9.893  1.00108.25           N
ATOM   1017  CA  LEU   130     -23.724  48.341   9.638  1.00108.25           C
ATOM   1018  CB  LEU   130     -24.120  48.225   8.152  1.00108.25           C
ATOM   1019  CG  LEU   130     -23.881  49.498   7.317  1.00108.25           C
ATOM   1020  CD1 LEU   130     -24.824  50.636   7.749  1.00108.25           C
ATOM   1021  CD2 LEU   130     -22.406  49.916   7.334  1.00108.25           C
ATOM   1022  C   LEU   130     -24.144  47.085  10.312  1.00108.25           C
ATOM   1023  O   LEU   130     -24.226  46.022   9.701  1.00108.25           O
ATOM   1024  N   HIS   131     -24.435  47.209  11.615  1.00126.85           N
ATOM   1025  CA  HIS   131     -24.668  46.085  12.463  1.00126.85           C
ATOM   1026  ND1 HIS   131     -25.394  48.944  13.986  1.00126.85           N
ATOM   1027  CG  HIS   131     -25.729  47.615  14.150  1.00126.85           C
ATOM   1028  CB  HIS   131     -24.773  46.481  13.944  1.00126.85           C
ATOM   1029  NE2 HIS   131     -27.541  48.894  14.564  1.00126.85           N
ATOM   1030  CD2 HIS   131     -27.043  47.605  14.502  1.00126.85           C
ATOM   1031  CE1 HIS   131     -26.515  49.662  14.245  1.00126.85           C
ATOM   1032  C   HIS   131     -25.918  45.364  12.094  1.00126.85           C
ATOM   1033  O   HIS   131     -26.920  45.955  11.697  1.00126.85           O
ATOM   1034  N   TYR   132     -25.830  44.028  12.215  1.00228.41           N
ATOM   1035  CA  TYR   132     -26.883  43.080  12.041  1.00228.41           C
ATOM   1036  CB  TYR   132     -28.117  43.418  12.898  1.00228.41           C
ATOM   1037  CG  TYR   132     -27.672  43.380  14.323  1.00228.41           C
ATOM   1038  CD1 TYR   132     -27.505  42.180  14.970  1.00228.41           C
ATOM   1039  CD2 TYR   132     -27.425  44.544  15.018  1.00228.41           C
ATOM   1040  CE1 TYR   132     -27.094  42.136  16.282  1.00228.41           C
ATOM   1041  CE2 TYR   132     -27.014  44.505  16.332  1.00228.41           C
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ATOM   1042  CZ  TYR   132     -26.842  43.299  16.965  1.00228.41           C
ATOM   1043  OH  TYR   132     -26.419  43.250  18.310  1.00228.41           O
ATOM   1044  C   TYR   132     -27.291  43.004  10.609  1.00228.41           C
ATOM   1045  O   TYR   132     -28.066  42.125  10.240  1.00228.41           O
ATOM   1046  N   ILE   133     -26.742  43.862   9.731  1.00126.00           N
ATOM   1047  CA  ILE   133     -27.116  43.685   8.363  1.00126.00           C
ATOM   1048  CB  ILE   133     -27.054  44.910   7.497  1.00126.00           C
ATOM   1049  CG2 ILE   133     -25.596  45.382   7.410  1.00126.00           C
ATOM   1050  CG1 ILE   133     -27.683  44.598   6.128  1.00126.00           C
ATOM   1051  CD1 ILE   133     -27.893  45.826   5.244  1.00126.00           C
ATOM   1052  C   ILE   133     -26.154  42.693   7.819  1.00126.00           C
ATOM   1053  O   ILE   133     -24.946  42.787   8.024  1.00126.00           O
ATOM   1054  N   LEU   134     -26.683  41.670   7.137  1.00 91.45           N
ATOM   1055  CA  LEU   134     -25.819  40.670   6.605  1.00 91.45           C
ATOM   1056  CB  LEU   134     -26.610  39.443   6.124  1.00 91.45           C
ATOM   1057  CG  LEU   134     -27.363  38.796   7.307  1.00 91.45           C
ATOM   1058  CD1 LEU   134     -28.190  37.576   6.892  1.00 91.45           C
ATOM   1059  CD2 LEU   134     -26.394  38.481   8.455  1.00 91.45           C
ATOM   1060  C   LEU   134     -25.084  41.309   5.477  1.00 91.45           C
ATOM   1061  O   LEU   134     -25.601  42.203   4.811  1.00 91.45           O
ATOM   1062  N   ILE   135     -23.826  40.895   5.259  1.00 93.26           N
ATOM   1063  CA  ILE   135     -23.067  41.510   4.212  1.00 93.26           C
ATOM   1064  CB  ILE   135     -21.655  41.004   4.094  1.00 93.26           C
ATOM   1065  CG2 ILE   135     -20.915  41.325   5.404  1.00 93.26           C
ATOM   1066  CG1 ILE   135     -21.630  39.517   3.708  1.00 93.26           C
ATOM   1067  CD1 ILE   135     -20.258  39.045   3.226  1.00 93.26           C
ATOM   1068  C   ILE   135     -23.745  41.211   2.912  1.00 93.26           C
ATOM   1069  O   ILE   135     -23.825  42.064   2.029  1.00 93.26           O
ATOM   1070  N   MET   136     -24.261  39.974   2.775  1.00128.96           N
ATOM   1071  CA  MET   136     -24.803  39.477   1.543  1.00128.96           C
ATOM   1072  CB  MET   136     -24.992  37.954   1.558  1.00128.96           C
ATOM   1073  CG  MET   136     -23.704  37.211   1.903  1.00128.96           C
ATOM   1074  SD  MET   136     -22.346  37.452   0.724  1.00128.96           S
ATOM   1075  CE  MET   136     -21.186  36.432   1.678  1.00128.96           C
ATOM   1076  C   MET   136     -26.152  40.053   1.223  1.00128.96           C
ATOM   1077  O   MET   136     -26.932  40.393   2.110  1.00128.96           O
ATOM   1078  N   SER   137     -26.426  40.181  -0.096  1.00108.40           N
ATOM   1079  CA  SER   137     -27.702  40.597  -0.615  1.00108.40           C
ATOM   1080  CB  SER   137     -27.634  41.254  -2.007  1.00108.40           C
ATOM   1081  OG  SER   137     -27.173  40.322  -2.974  1.00108.40           O
ATOM   1082  C   SER   137     -28.510  39.340  -0.747  1.00108.40           C
ATOM   1083  O   SER   137     -28.001  38.254  -0.498  1.00108.40           O
ATOM   1084  N   PRO   138     -29.766  39.440  -1.101  1.00 95.89           N
ATOM   1085  CA  PRO   138     -30.558  38.251  -1.245  1.00 95.89           C
ATOM   1086  CD  PRO   138     -30.584  40.596  -0.789  1.00 95.89           C
ATOM   1087  CB  PRO   138     -32.019  38.708  -1.308  1.00 95.89           C
ATOM   1088  CG  PRO   138     -31.945  40.244  -1.416  1.00 95.89           C
ATOM   1089  C   PRO   138     -30.113  37.376  -2.377  1.00 95.89           C
ATOM   1090  O   PRO   138     -30.295  36.164  -2.282  1.00 95.89           O
ATOM   1091  N   GLY   139     -29.557  37.959  -3.458  1.00 17.69           N
ATOM   1092  CA  GLY   139     -29.103  37.192  -4.584  1.00 17.69           C
ATOM   1093  C   GLY   139     -27.929  36.363  -4.172  1.00 17.69           C
ATOM   1094  O   GLY   139     -27.791  35.211  -4.581  1.00 17.69           O
ATOM   1095  N   LEU   140     -27.041  36.960  -3.355  1.00 39.45           N
ATOM   1096  CA  LEU   140     -25.844  36.315  -2.890  1.00 39.45           C
ATOM   1097  CB  LEU   140     -25.036  37.206  -1.930  1.00 39.45           C
ATOM   1098  CG  LEU   140     -24.521  38.526  -2.533  1.00 39.45           C
ATOM   1099  CD1 LEU   140     -23.729  39.335  -1.493  1.00 39.45           C
ATOM   1100  CD2 LEU   140     -23.720  38.283  -3.822  1.00 39.45           C
ATOM   1101  C   LEU   140     -26.261  35.144  -2.065  1.00 39.45           C
ATOM   1102  O   LEU   140     -25.672  34.068  -2.146  1.00 39.45           O
ATOM   1103  N   CYS   141     -27.314  35.347  -1.253  1.00 68.84           N
ATOM   1104  CA  CYS   141     -27.785  34.347  -0.344  1.00 68.84           C
ATOM   1105  CB  CYS   141     -29.002  34.802   0.478  1.00 68.84           C
ATOM   1106  SG  CYS   141     -29.602  33.502   1.601  1.00 68.84           S
ATOM   1107  C   CYS   141     -28.218  33.140  -1.109  1.00 68.84           C
ATOM   1108  O   CYS   141     -27.971  32.014  -0.682  1.00 68.84           O
ATOM   1109  N   ILE   142     -28.890  33.340  -2.256  1.00 86.25           N
ATOM   1110  CA  ILE   142     -29.335  32.211  -3.020  1.00 86.25           C
ATOM   1111  CB  ILE   142     -30.163  32.563  -4.220  1.00 86.25           C
ATOM   1112  CG2 ILE   142     -30.224  31.308  -5.103  1.00 86.25           C
ATOM   1113  CG1 ILE   142     -31.546  33.090  -3.798  1.00 86.25           C
ATOM   1114  CD1 ILE   142     -32.383  32.058  -3.039  1.00 86.25           C
ATOM   1115  C   ILE   142     -28.149  31.436  -3.504  1.00 86.25           C
ATOM   1116  O   ILE   142     -28.166  30.207  -3.503  1.00 86.25           O
ATOM   1117  N   PHE   143     -27.079  32.122  -3.942  1.00 29.28           N
ATOM   1118  CA  PHE   143     -25.949  31.404  -4.459  1.00 29.28           C
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ATOM   1119  CB  PHE   143     -24.805  32.317  -4.932  1.00 29.28           C
ATOM   1120  CG  PHE   143     -23.737  31.424  -5.465  1.00 29.28           C
ATOM   1121  CD1 PHE   143     -23.831  30.934  -6.747  1.00 29.28           C
ATOM   1122  CD2 PHE   143     -22.648  31.073  -4.698  1.00 29.28           C
ATOM   1123  CE1 PHE   143     -22.862  30.107  -7.260  1.00 29.28           C
ATOM   1124  CE2 PHE   143     -21.674  30.246  -5.206  1.00 29.28           C
ATOM   1125  CZ  PHE   143     -21.779  29.762  -6.488  1.00 29.28           C
ATOM   1126  C   PHE   143     -25.392  30.543  -3.372  1.00 29.28           C
ATOM   1127  O   PHE   143     -25.089  29.371  -3.589  1.00 29.28           O
ATOM   1128  N   LEU   144     -25.251  31.106  -2.159  1.00 85.76           N
ATOM   1129  CA  LEU   144     -24.663  30.364  -1.085  1.00 85.76           C
ATOM   1130  CB  LEU   144     -24.502  31.228   0.189  1.00 85.76           C
ATOM   1131  CG  LEU   144     -23.761  30.586   1.387  1.00 85.76           C
ATOM   1132  CD1 LEU   144     -23.533  31.627   2.495  1.00 85.76           C
ATOM   1133  CD2 LEU   144     -24.471  29.340   1.942  1.00 85.76           C
ATOM   1134  C   LEU   144     -25.531  29.179  -0.787  1.00 85.76           C
ATOM   1135  O   LEU   144     -25.028  28.069  -0.622  1.00 85.76           O
ATOM   1136  N   VAL   145     -26.861  29.377  -0.714  1.00 93.73           N
ATOM   1137  CA  VAL   145     -27.732  28.292  -0.364  1.00 93.73           C
ATOM   1138  CB  VAL   145     -29.155  28.718  -0.149  1.00 93.73           C
ATOM   1139  CG1 VAL   145     -29.182  29.723   1.018  1.00 93.73           C
ATOM   1140  CG2 VAL   145     -29.730  29.256  -1.466  1.00 93.73           C
ATOM   1141  C   VAL   145     -27.694  27.235  -1.425  1.00 93.73           C
ATOM   1142  O   VAL   145     -27.585  26.049  -1.121  1.00 93.73           O
ATOM   1143  N   SER   146     -27.754  27.636  -2.708  1.00 65.30           N
ATOM   1144  CA  SER   146     -27.762  26.663  -3.761  1.00 65.30           C
ATOM   1145  CB  SER   146     -27.866  27.296  -5.158  1.00 65.30           C
ATOM   1146  OG  SER   146     -29.130  27.926  -5.307  1.00 65.30           O
ATOM   1147  C   SER   146     -26.481  25.900  -3.685  1.00 65.30           C
ATOM   1148  O   SER   146     -26.458  24.687  -3.888  1.00 65.30           O
ATOM   1149  N   ALA   147     -25.377  26.599  -3.369  1.00 22.72           N
ATOM   1150  CA  ALA   147     -24.096  25.965  -3.284  1.00 22.72           C
ATOM   1151  CB  ALA   147     -22.962  26.944  -2.941  1.00 22.72           C
ATOM   1152  C   ALA   147     -24.148  24.951  -2.190  1.00 22.72           C
ATOM   1153  O   ALA   147     -23.616  23.854  -2.328  1.00 22.72           O
ATOM   1154  N   SER   148     -24.809  25.286  -1.067  1.00 68.28           N
ATOM   1155  CA  SER   148     -24.847  24.386   0.049  1.00 68.28           C
ATOM   1156  CB  SER   148     -25.619  24.961   1.251  1.00 68.28           C
ATOM   1157  OG  SER   148     -25.598  24.040   2.330  1.00 68.28           O
ATOM   1158  C   SER   148     -25.513  23.118  -0.384  1.00 68.28           C
ATOM   1159  O   SER   148     -25.070  22.025  -0.033  1.00 68.28           O
ATOM   1160  N   TRP   149     -26.598  23.213  -1.171  1.00 79.51           N
ATOM   1161  CA  TRP   149     -27.234  22.007  -1.612  1.00 79.51           C
ATOM   1162  CB  TRP   149     -28.519  22.235  -2.415  1.00 79.51           C
ATOM   1163  CG  TRP   149     -29.757  22.495  -1.601  1.00 79.51           C
ATOM   1164  CD2 TRP   149     -30.693  21.448  -1.288  1.00 79.51           C
ATOM   1165  CD1 TRP   149     -30.278  23.647  -1.085  1.00 79.51           C
ATOM   1166  NE1 TRP   149     -31.490  23.385  -0.488  1.00 79.51           N
ATOM   1167  CE2 TRP   149     -31.757  22.038  -0.604  1.00 79.51           C
ATOM   1168  CE3 TRP   149     -30.669  20.116  -1.571  1.00 79.51           C
ATOM   1169  CZ2 TRP   149     -32.831  21.289  -0.202  1.00 79.51           C
ATOM   1170  CZ3 TRP   149     -31.736  19.361  -1.134  1.00 79.51           C
ATOM   1171  CH2 TRP   149     -32.796  19.938  -0.465  1.00 79.51           C
ATOM   1172  C   TRP   149     -26.306  21.221  -2.485  1.00 79.51           C
ATOM   1173  O   TRP   149     -26.239  19.999  -2.373  1.00 79.51           O
ATOM   1174  N   ILE   150     -25.572  21.889  -3.394  1.00 37.52           N
ATOM   1175  CA  ILE   150     -24.731  21.143  -4.284  1.00 37.52           C
ATOM   1176  CB  ILE   150     -24.084  21.997  -5.335  1.00 37.52           C
ATOM   1177  CG2 ILE   150     -23.057  21.137  -6.088  1.00 37.52           C
ATOM   1178  CG1 ILE   150     -25.161  22.609  -6.249  1.00 37.52           C
ATOM   1179  CD1 ILE   150     -24.614  23.640  -7.234  1.00 37.52           C
ATOM   1180  C   ILE   150     -23.660  20.431  -3.512  1.00 37.52           C
ATOM   1181  O   ILE   150     -23.437  19.239  -3.722  1.00 37.52           O
ATOM   1182  N   MET   151     -22.975  21.110  -2.575  1.00109.73           N
ATOM   1183  CA  MET   151     -21.920  20.419  -1.885  1.00109.73           C
ATOM   1184  CB  MET   151     -21.100  21.318  -0.948  1.00109.73           C
ATOM   1185  CG  MET   151     -20.090  22.205  -1.684  1.00109.73           C
ATOM   1186  SD  MET   151     -20.798  23.536  -2.694  1.00109.73           S
ATOM   1187  CE  MET   151     -20.991  22.522  -4.188  1.00109.73           C
ATOM   1188  C   MET   151     -22.500  19.287  -1.093  1.00109.73           C
ATOM   1189  O   MET   151     -21.921  18.204  -1.023  1.00109.73           O
ATOM   1190  N   ASN   152     -23.679  19.524  -0.489  1.00 98.01           N
ATOM   1191  CA  ASN   152     -24.418  18.580   0.303  1.00 98.01           C
ATOM   1192  CB  ASN   152     -25.770  19.208   0.701  1.00 98.01           C
ATOM   1193  CG  ASN   152     -26.714  18.176   1.284  1.00 98.01           C
ATOM   1194  OD1 ASN   152     -26.295  17.141   1.801  1.00 98.01           O
ATOM   1195  ND2 ASN   152     -28.036  18.481   1.160  1.00 98.01           N
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ATOM   1196  C   ASN   152     -24.698  17.376  -0.540  1.00 98.01           C
ATOM   1197  O   ASN   152     -24.510  16.242  -0.102  1.00 98.01           O
ATOM   1198  N   ALA   153     -25.164  17.601  -1.781  1.00 33.08           N
ATOM   1199  CA  ALA   153     -25.492  16.532  -2.679  1.00 33.08           C
ATOM   1200  CB  ALA   153     -26.122  17.041  -3.987  1.00 33.08           C
ATOM   1201  C   ALA   153     -24.257  15.769  -3.038  1.00 33.08           C
ATOM   1202  O   ALA   153     -24.257  14.539  -3.041  1.00 33.08           O
ATOM   1203  N   LEU   154     -23.153  16.477  -3.341  1.00144.52           N
ATOM   1204  CA  LEU   154     -21.970  15.771  -3.735  1.00144.52           C
ATOM   1205  CB  LEU   154     -20.820  16.669  -4.230  1.00144.52           C
ATOM   1206  CG  LEU   154     -20.991  17.165  -5.685  1.00144.52           C
ATOM   1207  CD1 LEU   154     -20.956  15.989  -6.675  1.00144.52           C
ATOM   1208  CD2 LEU   154     -22.243  18.032  -5.872  1.00144.52           C
ATOM   1209  C   LEU   154     -21.478  14.929  -2.603  1.00144.52           C
ATOM   1210  O   LEU   154     -21.026  13.807  -2.820  1.00144.52           O
ATOM   1211  N   HIS   155     -21.522  15.441  -1.360  1.00130.55           N
ATOM   1212  CA  HIS   155     -21.034  14.644  -0.273  1.00130.55           C
ATOM   1213  ND1 HIS   155     -18.862  14.302   2.181  1.00130.55           N
ATOM   1214  CG  HIS   155     -20.219  14.485   2.069  1.00130.55           C
ATOM   1215  CB  HIS   155     -20.863  15.391   1.059  1.00130.55           C
ATOM   1216  NE2 HIS   155     -19.808  12.952   3.671  1.00130.55           N
ATOM   1217  CD2 HIS   155     -20.785  13.654   2.987  1.00130.55           C
ATOM   1218  CE1 HIS   155     -18.669  13.376   3.154  1.00130.55           C
ATOM   1219  C   HIS   155     -21.927  13.467   0.004  1.00130.55           C
ATOM   1220  O   HIS   155     -21.432  12.395   0.341  1.00130.55           O
ATOM   1221  N   SER   156     -23.264  13.650  -0.034  1.00 62.27           N
ATOM   1222  CA  SER   156     -24.192  12.588   0.271  1.00 62.27           C
ATOM   1223  CB  SER   156     -25.588  13.120   0.636  1.00 62.27           C
ATOM   1224  OG  SER   156     -26.160  13.780  -0.484  1.00 62.27           O
ATOM   1225  C   SER   156     -24.377  11.604  -0.850  1.00 62.27           C
ATOM   1226  O   SER   156     -24.195  10.400  -0.681  1.00 62.27           O
ATOM   1227  N   LEU   157     -24.761  12.123  -2.031  1.00109.43           N
ATOM   1228  CA  LEU   157     -25.175  11.373  -3.190  1.00109.43           C
ATOM   1229  CB  LEU   157     -25.710  12.352  -4.264  1.00109.43           C
ATOM   1230  CG  LEU   157     -26.501  11.765  -5.456  1.00109.43           C
ATOM   1231  CD1 LEU   157     -26.836  12.861  -6.477  1.00109.43           C
ATOM   1232  CD2 LEU   157     -25.812  10.567  -6.118  1.00109.43           C
ATOM   1233  C   LEU   157     -24.049  10.557  -3.775  1.00109.43           C
ATOM   1234  O   LEU   157     -24.247   9.396  -4.133  1.00109.43           O
ATOM   1235  N   LEU   158     -22.833  11.129  -3.885  1.00 52.70           N
ATOM   1236  CA  LEU   158     -21.780  10.447  -4.596  1.00 52.70           C
ATOM   1237  CB  LEU   158     -20.470  11.263  -4.697  1.00 52.70           C
ATOM   1238  CG  LEU   158     -20.556  12.552  -5.545  1.00 52.70           C
ATOM   1239  CD1 LEU   158     -19.202  13.278  -5.600  1.00 52.70           C
ATOM   1240  CD2 LEU   158     -21.107  12.272  -6.951  1.00 52.70           C
ATOM   1241  C   LEU   158     -21.427   9.140  -3.949  1.00 52.70           C
ATOM   1242  O   LEU   158     -21.379   8.109  -4.618  1.00 52.70           O
ATOM   1243  N   HIS   159     -21.200   9.135  -2.624  1.00 75.49           N
ATOM   1244  CA  HIS   159     -20.761   7.949  -1.942  1.00 75.49           C
ATOM   1245  ND1 HIS   159     -18.953  10.247  -0.662  1.00 75.49           N
ATOM   1246  CG  HIS   159     -19.192   8.977  -0.190  1.00 75.49           C
ATOM   1247  CB  HIS   159     -20.451   8.194  -0.453  1.00 75.49           C
ATOM   1248  NE2 HIS   159     -17.173   9.672   0.541  1.00 75.49           N
ATOM   1249  CD2 HIS   159     -18.094   8.640   0.545  1.00 75.49           C
ATOM   1250  CE1 HIS   159     -17.732  10.615  -0.196  1.00 75.49           C
ATOM   1251  C   HIS   159     -21.816   6.884  -2.006  1.00 75.49           C
ATOM   1252  O   HIS   159     -21.505   5.709  -2.201  1.00 75.49           O
ATOM   1253  N   THR   160     -23.092   7.260  -1.808  1.00112.46           N
ATOM   1254  CA  THR   160     -24.155   6.296  -1.809  1.00112.46           C
ATOM   1255  CB  THR   160     -25.480   6.883  -1.405  1.00112.46           C
ATOM   1256  OG1 THR   160     -26.481   5.880  -1.359  1.00112.46           O
ATOM   1257  CG2 THR   160     -25.865   8.002  -2.391  1.00112.46           C
ATOM   1258  C   THR   160     -24.311   5.682  -3.172  1.00112.46           C
ATOM   1259  O   THR   160     -24.413   4.462  -3.287  1.00112.46           O
ATOM   1260  N   LEU   161     -24.345   6.505  -4.242  1.00 60.62           N
ATOM   1261  CA  LEU   161     -24.501   5.965  -5.565  1.00 60.62           C
ATOM   1262  CB  LEU   161     -24.654   7.007  -6.690  1.00 60.62           C
ATOM   1263  CG  LEU   161     -26.052   7.637  -6.820  1.00 60.62           C
ATOM   1264  CD1 LEU   161     -26.155   8.444  -8.126  1.00 60.62           C
ATOM   1265  CD2 LEU   161     -27.159   6.575  -6.702  1.00 60.62           C
ATOM   1266  C   LEU   161     -23.302   5.149  -5.924  1.00 60.62           C
ATOM   1267  O   LEU   161     -23.420   4.092  -6.543  1.00 60.62           O
ATOM   1268  N   LEU   162     -22.113   5.642  -5.541  1.00 67.55           N
ATOM   1269  CA  LEU   162     -20.853   5.013  -5.815  1.00 67.55           C
ATOM   1270  CB  LEU   162     -19.624   5.887  -5.503  1.00 67.55           C
ATOM   1271  CG  LEU   162     -19.500   7.120  -6.420  1.00 67.55           C
ATOM   1272  CD1 LEU   162     -18.139   7.811  -6.242  1.00 67.55           C
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ATOM   1273  CD2 LEU   162     -19.806   6.762  -7.883  1.00 67.55           C
ATOM   1274  C   LEU   162     -20.747   3.729  -5.045  1.00 67.55           C
ATOM   1275  O   LEU   162     -19.972   2.850  -5.416  1.00 67.55           O
ATOM   1276  N   MET   163     -21.544   3.575  -3.970  1.00125.98           N
ATOM   1277  CA  MET   163     -21.447   2.433  -3.098  1.00125.98           C
ATOM   1278  CB  MET   163     -21.702   1.093  -3.809  1.00125.98           C
ATOM   1279  CG  MET   163     -23.137   0.865  -4.295  1.00125.98           C
ATOM   1280  SD  MET   163     -23.357  -0.731  -5.143  1.00125.98           S
ATOM   1281  CE  MET   163     -25.114  -0.522  -5.556  1.00125.98           C
ATOM   1282  C   MET   163     -20.073   2.374  -2.508  1.00125.98           C
ATOM   1283  O   MET   163     -19.526   1.291  -2.280  1.00125.98           O
ATOM   1284  N   ASN   164     -19.478   3.550  -2.260  1.00 43.21           N
ATOM   1285  CA  ASN   164     -18.210   3.646  -1.592  1.00 43.21           C
ATOM   1286  CB  ASN   164     -17.660   5.083  -1.543  1.00 43.21           C
ATOM   1287  CG  ASN   164     -17.272   5.521  -2.948  1.00 43.21           C
ATOM   1288  OD1 ASN   164     -17.114   4.697  -3.847  1.00 43.21           O
ATOM   1289  ND2 ASN   164     -17.100   6.857  -3.142  1.00 43.21           N
ATOM   1290  C   ASN   164     -18.401   3.225  -0.163  1.00 43.21           C
ATOM   1291  O   ASN   164     -17.528   2.598   0.435  1.00 43.21           O
ATOM   1292  N   SER   165     -19.572   3.573   0.408  1.00 57.23           N
ATOM   1293  CA  SER   165     -19.907   3.397   1.798  1.00 57.23           C
ATOM   1294  CB  SER   165     -21.273   4.010   2.138  1.00 57.23           C
ATOM   1295  OG  SER   165     -22.292   3.345   1.402  1.00 57.23           O
ATOM   1296  C   SER   165     -19.971   1.955   2.214  1.00 57.23           C
ATOM   1297  O   SER   165     -19.668   1.625   3.361  1.00 57.23           O
ATOM   1298  N   LEU   166     -20.338   1.052   1.289  1.00 69.43           N
ATOM   1299  CA  LEU   166     -20.619  -0.316   1.638  1.00 69.43           C
ATOM   1300  CB  LEU   166     -21.124  -1.134   0.441  1.00 69.43           C
ATOM   1301  CG  LEU   166     -22.468  -0.598  -0.077  1.00 69.43           C
ATOM   1302  CD1 LEU   166     -22.976  -1.419  -1.269  1.00 69.43           C
ATOM   1303  CD2 LEU   166     -23.493  -0.490   1.066  1.00 69.43           C
ATOM   1304  C   LEU   166     -19.438  -1.027   2.217  1.00 69.43           C
ATOM   1305  O   LEU   166     -18.288  -0.802   1.842  1.00 69.43           O
ATOM   1306  N   SER   167     -19.737  -1.901   3.200  1.00169.25           N
ATOM   1307  CA  SER   167     -18.770  -2.721   3.867  1.00169.25           C
ATOM   1308  CB  SER   167     -19.191  -3.104   5.295  1.00169.25           C
ATOM   1309  OG  SER   167     -18.232  -3.976   5.878  1.00169.25           O
ATOM   1310  C   SER   167     -18.658  -3.996   3.103  1.00169.25           C
ATOM   1311  O   SER   167     -19.479  -4.290   2.234  1.00169.25           O
ATOM   1312  N   PHE   168     -17.617  -4.794   3.401  1.00263.12           N
ATOM   1313  CA  PHE   168     -17.531  -6.059   2.737  1.00263.12           C
ATOM   1314  CB  PHE   168     -16.091  -6.527   2.459  1.00263.12           C
ATOM   1315  CG  PHE   168     -16.179  -7.733   1.591  1.00263.12           C
ATOM   1316  CD1 PHE   168     -16.513  -7.592   0.265  1.00263.12           C
ATOM   1317  CD2 PHE   168     -15.915  -8.994   2.082  1.00263.12           C
ATOM   1318  CE1 PHE   168     -16.599  -8.685  -0.562  1.00263.12           C
ATOM   1319  CE2 PHE   168     -15.999 -10.092   1.259  1.00263.12           C
ATOM   1320  CZ  PHE   168     -16.341  -9.939  -0.064  1.00263.12           C
ATOM   1321  C   PHE   168     -18.149  -7.033   3.683  1.00263.12           C
ATOM   1322  O   PHE   168     -17.635  -7.265   4.775  1.00263.12           O
ATOM   1323  N   CYS   169     -19.295  -7.617   3.291  1.00131.27           N
ATOM   1324  CA  CYS   169     -19.959  -8.530   4.169  1.00131.27           C
ATOM   1325  CB  CYS   169     -20.635  -7.821   5.348  1.00131.27           C
ATOM   1326  SG  CYS   169     -21.833  -6.589   4.751  1.00131.27           S
ATOM   1327  C   CYS   169     -21.062  -9.144   3.383  1.00131.27           C
ATOM   1328  O   CYS   169     -21.253  -8.820   2.213  1.00131.27           O
ATOM   1329  N   ALA   170     -21.802 -10.076   4.011  1.00207.64           N
ATOM   1330  CA  ALA   170     -22.951 -10.609   3.350  1.00207.64           C
ATOM   1331  CB  ALA   170     -23.086 -12.135   3.482  1.00207.64           C
ATOM   1332  C   ALA   170     -24.108  -9.991   4.057  1.00207.64           C
ATOM   1333  O   ALA   170     -24.271 -10.168   5.264  1.00207.64           O
ATOM   1334  N   ASN   171     -24.941  -9.230   3.322  1.00267.42           N
ATOM   1335  CA  ASN   171     -26.053  -8.592   3.952  1.00267.42           C
ATOM   1336  CB  ASN   171     -25.794  -7.128   4.360  1.00267.42           C
ATOM   1337  CG  ASN   171     -25.600  -6.268   3.116  1.00267.42           C
ATOM   1338  OD1 ASN   171     -24.933  -6.664   2.162  1.00267.42           O
ATOM   1339  ND2 ASN   171     -26.205  -5.050   3.130  1.00267.42           N
ATOM   1340  C   ASN   171     -27.173  -8.599   2.975  1.00267.42           C
ATOM   1341  O   ASN   171     -27.025  -9.053   1.841  1.00267.42           O
ATOM   1342  N   HIS   172     -28.342  -8.092   3.393  1.00163.46           N
ATOM   1343  CA  HIS   172     -29.442  -8.143   2.488  1.00163.46           C
ATOM   1344  ND1 HIS   172     -30.375  -8.891   5.557  1.00163.46           N
ATOM   1345  CG  HIS   172     -30.887  -9.094   4.297  1.00163.46           C
ATOM   1346  CB  HIS   172     -30.795  -8.076   3.203  1.00163.46           C
ATOM   1347  NE2 HIS   172     -31.244 -10.936   5.547  1.00163.46           N
ATOM   1348  CD2 HIS   172     -31.417 -10.349   4.306  1.00163.46           C
ATOM   1349  CE1 HIS   172     -30.613 -10.024   6.264  1.00163.46           C
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ATOM   1350  C   HIS   172     -29.347  -6.972   1.573  1.00163.46           C
ATOM   1351  O   HIS   172     -30.356  -6.434   1.122  1.00163.46           O
ATOM   1352  N   GLU   173     -28.106  -6.567   1.264  1.00 92.33           N
ATOM   1353  CA  GLU   173     -27.889  -5.501   0.341  1.00 92.33           C
ATOM   1354  CB  GLU   173     -26.399  -5.181   0.196  1.00 92.33           C
ATOM   1355  CG  GLU   173     -26.104  -3.932  -0.625  1.00 92.33           C
ATOM   1356  CD  GLU   173     -24.596  -3.788  -0.621  1.00 92.33           C
ATOM   1357  OE1 GLU   173     -24.046  -3.465   0.466  1.00 92.33           O
ATOM   1358  OE2 GLU   173     -23.971  -4.005  -1.693  1.00 92.33           O
ATOM   1359  C   GLU   173     -28.388  -6.012  -0.965  1.00 92.33           C
ATOM   1360  O   GLU   173     -29.073  -5.313  -1.709  1.00 92.33           O
ATOM   1361  N   ILE   174     -28.049  -7.281  -1.261  1.00120.27           N
ATOM   1362  CA  ILE   174     -28.476  -7.904  -2.471  1.00120.27           C
ATOM   1363  CB  ILE   174     -27.684  -9.138  -2.861  1.00120.27           C
ATOM   1364  CG2 ILE   174     -26.279  -8.663  -3.259  1.00120.27           C
ATOM   1365  CG1 ILE   174     -27.665 -10.233  -1.790  1.00120.27           C
ATOM   1366  CD1 ILE   174     -26.966 -11.509  -2.258  1.00120.27           C
ATOM   1367  C   ILE   174     -29.963  -8.105  -2.473  1.00120.27           C
ATOM   1368  O   ILE   174     -30.561  -7.980  -3.542  1.00120.27           O
ATOM   1369  N   PRO   175     -30.636  -8.424  -1.398  1.00 93.14           N
ATOM   1370  CA  PRO   175     -32.060  -8.536  -1.526  1.00 93.14           C
ATOM   1371  CD  PRO   175     -30.133  -9.291  -0.350  1.00 93.14           C
ATOM   1372  CB  PRO   175     -32.550  -9.408  -0.369  1.00 93.14           C
ATOM   1373  CG  PRO   175     -31.342  -9.501   0.575  1.00 93.14           C
ATOM   1374  C   PRO   175     -32.712  -7.196  -1.599  1.00 93.14           C
ATOM   1375  O   PRO   175     -32.301  -6.279  -0.891  1.00 93.14           O
ATOM   1376  N   HIS   176     -33.743  -7.080  -2.453  1.00 95.62           N
ATOM   1377  CA  HIS   176     -34.513  -5.883  -2.634  1.00 95.62           C
ATOM   1378  ND1 HIS   176     -36.168  -8.464  -4.000  1.00 95.62           N
ATOM   1379  CG  HIS   176     -36.451  -7.187  -3.577  1.00 95.62           C
ATOM   1380  CB  HIS   176     -35.530  -6.018  -3.777  1.00 95.62           C
ATOM   1381  NE2 HIS   176     -38.152  -8.556  -3.002  1.00 95.62           N
ATOM   1382  CD2 HIS   176     -37.668  -7.261  -2.968  1.00 95.62           C
ATOM   1383  CE1 HIS   176     -37.217  -9.243  -3.634  1.00 95.62           C
ATOM   1384  C   HIS   176     -35.307  -5.648  -1.390  1.00 95.62           C
ATOM   1385  O   HIS   176     -35.578  -4.512  -1.004  1.00 95.62           O
ATOM   1386  N   PHE   177     -35.697  -6.760  -0.750  1.00153.51           N
ATOM   1387  CA  PHE   177     -36.599  -6.846   0.358  1.00153.51           C
ATOM   1388  CB  PHE   177     -36.800  -8.335   0.701  1.00153.51           C
ATOM   1389  CG  PHE   177     -38.189  -8.590   1.183  1.00153.51           C
ATOM   1390  CD1 PHE   177     -39.229  -8.515   0.282  1.00153.51           C
ATOM   1391  CD2 PHE   177     -38.468  -8.953   2.480  1.00153.51           C
ATOM   1392  CE1 PHE   177     -40.526  -8.756   0.663  1.00153.51           C
ATOM   1393  CE2 PHE   177     -39.767  -9.198   2.866  1.00153.51           C
ATOM   1394  CZ  PHE   177     -40.797  -9.099   1.965  1.00153.51           C
ATOM   1395  C   PHE   177     -36.027  -6.128   1.549  1.00153.51           C
ATOM   1396  O   PHE   177     -36.758  -5.450   2.270  1.00153.51           O
ATOM   1397  N   PHE   178     -34.705  -6.246   1.804  1.00159.95           N
ATOM   1398  CA  PHE   178     -34.183  -5.635   2.998  1.00159.95           C
ATOM   1399  CB  PHE   178     -33.250  -6.561   3.788  1.00159.95           C
ATOM   1400  CG  PHE   178     -34.053  -7.773   4.119  1.00159.95           C
ATOM   1401  CD1 PHE   178     -34.949  -7.761   5.162  1.00159.95           C
ATOM   1402  CD2 PHE   178     -33.906  -8.924   3.380  1.00159.95           C
ATOM   1403  CE1 PHE   178     -35.688  -8.882   5.456  1.00159.95           C
ATOM   1404  CE2 PHE   178     -34.642 -10.049   3.669  1.00159.95           C
ATOM   1405  CZ  PHE   178     -35.536 -10.027   4.711  1.00159.95           C
ATOM   1406  C   PHE   178     -33.425  -4.390   2.651  1.00159.95           C
ATOM   1407  O   PHE   178     -32.850  -4.272   1.569  1.00159.95           O
ATOM   1408  N   CYS   179     -33.443  -3.402   3.575  1.00 78.21           N
ATOM   1409  CA  CYS   179     -32.780  -2.146   3.356  1.00 78.21           C
ATOM   1410  CB  CYS   179     -33.783  -1.030   2.985  1.00 78.21           C
ATOM   1411  SG  CYS   179     -33.035   0.605   2.717  1.00 78.21           S
ATOM   1412  C   CYS   179     -32.095  -1.755   4.629  1.00 78.21           C
ATOM   1413  O   CYS   179     -32.601  -0.922   5.382  1.00 78.21           O
ATOM   1414  N   ASP   180     -30.911  -2.345   4.901  1.00 57.03           N
ATOM   1415  CA  ASP   180     -30.162  -2.009   6.081  1.00 57.03           C
ATOM   1416  CB  ASP   180     -29.721  -3.231   6.911  1.00 57.03           C
ATOM   1417  CG  ASP   180     -30.948  -3.852   7.568  1.00 57.03           C
ATOM   1418  OD1 ASP   180     -32.071  -3.330   7.336  1.00 57.03           O
ATOM   1419  OD2 ASP   180     -30.780  -4.852   8.317  1.00 57.03           O
ATOM   1420  C   ASP   180     -28.922  -1.316   5.613  1.00 57.03           C
ATOM   1421  O   ASP   180     -28.270  -1.763   4.670  1.00 57.03           O
ATOM   1422  N   ILE   181     -28.551  -0.194   6.264  1.00168.31           N
ATOM   1423  CA  ILE   181     -27.394   0.514   5.801  1.00168.31           C
ATOM   1424  CB  ILE   181     -27.594   2.007   5.740  1.00168.31           C
ATOM   1425  CG2 ILE   181     -28.717   2.247   4.721  1.00168.31           C
ATOM   1426  CG1 ILE   181     -27.906   2.622   7.114  1.00168.31           C
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ATOM   1427  CD1 ILE   181     -29.227   2.136   7.712  1.00168.31           C
ATOM   1428  C   ILE   181     -26.239   0.187   6.686  1.00168.31           C
ATOM   1429  O   ILE   181     -26.135   0.659   7.816  1.00168.31           O
ATOM   1430  N   ASN   182     -25.314  -0.641   6.172  1.00 85.90           N
ATOM   1431  CA  ASN   182     -24.226  -1.034   7.007  1.00 85.90           C
ATOM   1432  CB  ASN   182     -24.098  -2.560   7.134  1.00 85.90           C
ATOM   1433  CG  ASN   182     -25.289  -3.027   7.956  1.00 85.90           C
ATOM   1434  OD1 ASN   182     -26.298  -3.478   7.417  1.00 85.90           O
ATOM   1435  ND2 ASN   182     -25.173  -2.890   9.304  1.00 85.90           N
ATOM   1436  C   ASN   182     -22.960  -0.517   6.420  1.00 85.90           C
ATOM   1437  O   ASN   182     -22.571  -0.845   5.304  1.00 85.90           O
ATOM   1438  N   PRO   183     -22.352   0.360   7.159  1.00269.56           N
ATOM   1439  CA  PRO   183     -21.043   0.813   6.811  1.00269.56           C
ATOM   1440  CD  PRO   183     -23.081   1.305   7.985  1.00269.56           C
ATOM   1441  CB  PRO   183     -20.760   1.970   7.763  1.00269.56           C
ATOM   1442  CG  PRO   183     -22.154   2.520   8.118  1.00269.56           C
ATOM   1443  C   PRO   183     -20.204  -0.385   7.076  1.00269.56           C
ATOM   1444  O   PRO   183     -19.172  -0.580   6.436  1.00269.56           O
ATOM   1445  N   LEU   184     -20.654  -1.174   8.069  1.00300.24           N
ATOM   1446  CA  LEU   184     -20.037  -2.387   8.498  1.00300.24           C
ATOM   1447  CB  LEU   184     -19.048  -2.160   9.649  1.00300.24           C
ATOM   1448  CG  LEU   184     -18.512  -3.453  10.282  1.00300.24           C
ATOM   1449  CD1 LEU   184     -17.734  -4.297   9.264  1.00300.24           C
ATOM   1450  CD2 LEU   184     -17.709  -3.146  11.555  1.00300.24           C
ATOM   1451  C   LEU   184     -21.140  -3.232   9.036  1.00300.24           C
ATOM   1452  O   LEU   184     -21.929  -2.778   9.863  1.00300.24           O
ATOM   1453  N   LEU   185     -21.244  -4.488   8.570  1.00280.75           N
ATOM   1454  CA  LEU   185     -22.269  -5.320   9.119  1.00280.75           C
ATOM   1455  CB  LEU   185     -22.712  -6.447   8.164  1.00280.75           C
ATOM   1456  CG  LEU   185     -24.040  -7.139   8.534  1.00280.75           C
ATOM   1457  CD1 LEU   185     -23.949  -7.948   9.833  1.00280.75           C
ATOM   1458  CD2 LEU   185     -25.196  -6.121   8.524  1.00280.75           C
ATOM   1459  C   LEU   185     -21.641  -5.904  10.345  1.00280.75           C
ATOM   1460  O   LEU   185     -20.432  -6.127  10.378  1.00280.75           O
ATOM   1461  N   SER   186     -22.444  -6.151  11.396  1.00 98.68           N
ATOM   1462  CA  SER   186     -21.911  -6.626  12.641  1.00 98.68           C
ATOM   1463  CB  SER   186     -22.990  -6.800  13.727  1.00 98.68           C
ATOM   1464  OG  SER   186     -22.398  -7.251  14.940  1.00 98.68           O
ATOM   1465  C   SER   186     -21.260  -7.954  12.414  1.00 98.68           C
ATOM   1466  O   SER   186     -20.240  -8.262  13.028  1.00 98.68           O
ATOM   1467  N   LEU   187     -21.817  -8.769  11.500  1.00242.97           N
ATOM   1468  CA  LEU   187     -21.257 -10.068  11.254  1.00242.97           C
ATOM   1469  CB  LEU   187     -22.132 -10.922  10.321  1.00242.97           C
ATOM   1470  CG  LEU   187     -21.527 -12.300  10.001  1.00242.97           C
ATOM   1471  CD1 LEU   187     -21.362 -13.142  11.275  1.00242.97           C
ATOM   1472  CD2 LEU   187     -22.323 -13.025   8.901  1.00242.97           C
ATOM   1473  C   LEU   187     -19.936  -9.887  10.579  1.00242.97           C
ATOM   1474  O   LEU   187     -19.858  -9.750   9.359  1.00242.97           O
ATOM   1475  N   SER   188     -18.848  -9.896  11.375  1.00199.46           N
ATOM   1476  CA  SER   188     -17.532  -9.774  10.826  1.00199.46           C
ATOM   1477  CB  SER   188     -17.055  -8.325  10.641  1.00199.46           C
ATOM   1478  OG  SER   188     -17.803  -7.698   9.606  1.00199.46           O
ATOM   1479  C   SER   188     -16.599 -10.457  11.772  1.00199.46           C
ATOM   1480  O   SER   188     -16.955 -10.757  12.911  1.00199.46           O
ATOM   1481  N   CYS   189     -15.368 -10.721  11.295  1.00 72.36           N
ATOM   1482  CA  CYS   189     -14.368 -11.428  12.039  1.00 72.36           C
ATOM   1483  CB  CYS   189     -13.397 -12.215  11.140  1.00 72.36           C
ATOM   1484  SG  CYS   189     -14.222 -13.392  10.025  1.00 72.36           S
ATOM   1485  C   CYS   189     -13.515 -10.412  12.721  1.00 72.36           C
ATOM   1486  O   CYS   189     -13.784  -9.214  12.666  1.00 72.36           O
ATOM   1487  N   THR   190     -12.464 -10.886  13.416  1.00235.22           N
ATOM   1488  CA  THR   190     -11.535  -9.962  13.979  1.00235.22           C
ATOM   1489  CB  THR   190     -10.618 -10.555  15.010  1.00235.22           C
ATOM   1490  OG1 THR   190      -9.860  -9.534  15.639  1.00235.22           O
ATOM   1491  CG2 THR   190      -9.688 -11.570  14.326  1.00235.22           C
ATOM   1492  C   THR   190     -10.719  -9.512  12.817  1.00235.22           C
ATOM   1493  O   THR   190     -10.791 -10.116  11.746  1.00235.22           O
ATOM   1494  N   ASP   191      -9.904  -8.454  12.997  1.00214.14           N
ATOM   1495  CA  ASP   191      -9.235  -7.904  11.855  1.00214.14           C
ATOM   1496  CB  ASP   191      -8.295  -8.918  11.172  1.00214.14           C
ATOM   1497  CG  ASP   191      -7.047  -9.100  12.022  1.00214.14           C
ATOM   1498  OD1 ASP   191      -6.319  -8.092  12.207  1.00214.14           O
ATOM   1499  OD2 ASP   191      -6.805 -10.244  12.502  1.00214.14           O
ATOM   1500  C   ASP   191     -10.324  -7.564  10.881  1.00214.14           C
ATOM   1501  O   ASP   191     -10.191  -7.790   9.681  1.00214.14           O
ATOM   1502  N   PRO   192     -11.406  -7.013  11.369  1.00110.04           N
ATOM   1503  CA  PRO   192     -12.558  -6.817  10.537  1.00110.04           C
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ATOM   1504  CD  PRO   192     -11.375  -6.034  12.452  1.00110.04           C
ATOM   1505  CB  PRO   192     -13.563  -6.079  11.412  1.00110.04           C
ATOM   1506  CG  PRO   192     -12.657  -5.199  12.292  1.00110.04           C
ATOM   1507  C   PRO   192     -12.246  -5.992   9.333  1.00110.04           C
ATOM   1508  O   PRO   192     -11.409  -5.094   9.414  1.00110.04           O
ATOM   1509  N   PHE   193     -12.907  -6.305   8.201  1.00198.18           N
ATOM   1510  CA  PHE   193     -12.802  -5.503   7.021  1.00198.18           C
ATOM   1511  CB  PHE   193     -12.506  -6.284   5.730  1.00198.18           C
ATOM   1512  CG  PHE   193     -11.029  -6.389   5.616  1.00198.18           C
ATOM   1513  CD1 PHE   193     -10.301  -7.173   6.483  1.00198.18           C
ATOM   1514  CD2 PHE   193     -10.375  -5.697   4.626  1.00198.18           C
ATOM   1515  CE1 PHE   193      -8.935  -7.253   6.361  1.00198.18           C
ATOM   1516  CE2 PHE   193      -9.008  -5.775   4.499  1.00198.18           C
ATOM   1517  CZ  PHE   193      -8.288  -6.555   5.370  1.00198.18           C
ATOM   1518  C   PHE   193     -14.111  -4.814   6.844  1.00198.18           C
ATOM   1519  O   PHE   193     -15.163  -5.449   6.809  1.00198.18           O
ATOM   1520  N   THR   194     -14.059  -3.475   6.769  1.00281.28           N
ATOM   1521  CA  THR   194     -15.230  -2.675   6.581  1.00281.28           C
ATOM   1522  CB  THR   194     -15.882  -2.275   7.868  1.00281.28           C
ATOM   1523  OG1 THR   194     -17.111  -1.617   7.620  1.00281.28           O
ATOM   1524  CG2 THR   194     -14.914  -1.337   8.614  1.00281.28           C
ATOM   1525  C   THR   194     -14.738  -1.409   5.983  1.00281.28           C
ATOM   1526  O   THR   194     -13.533  -1.232   5.815  1.00281.28           O
ATOM   1527  N   ASN   195     -15.653  -0.494   5.613  1.00181.35           N
ATOM   1528  CA  ASN   195     -15.106   0.751   5.192  1.00181.35           C
ATOM   1529  CB  ASN   195     -15.774   1.361   3.953  1.00181.35           C
ATOM   1530  CG  ASN   195     -15.115   0.691   2.756  1.00181.35           C
ATOM   1531  OD1 ASN   195     -14.502   1.359   1.925  1.00181.35           O
ATOM   1532  ND2 ASN   195     -15.219  -0.663   2.677  1.00181.35           N
ATOM   1533  C   ASN   195     -15.216   1.681   6.349  1.00181.35           C
ATOM   1534  O   ASN   195     -16.200   2.398   6.519  1.00181.35           O
ATOM   1535  N   GLU   196     -14.172   1.645   7.194  1.00 87.83           N
ATOM   1536  CA  GLU   196     -14.034   2.484   8.344  1.00 87.83           C
ATOM   1537  CB  GLU   196     -12.786   2.101   9.175  1.00 87.83           C
ATOM   1538  CG  GLU   196     -12.566   2.898  10.468  1.00 87.83           C
ATOM   1539  CD  GLU   196     -11.315   2.350  11.159  1.00 87.83           C
ATOM   1540  OE1 GLU   196     -10.948   1.177  10.876  1.00 87.83           O
ATOM   1541  OE2 GLU   196     -10.712   3.096  11.975  1.00 87.83           O
ATOM   1542  C   GLU   196     -13.842   3.861   7.804  1.00 87.83           C
ATOM   1543  O   GLU   196     -14.274   4.854   8.386  1.00 87.83           O
ATOM   1544  N   LEU   197     -13.179   3.935   6.637  1.00 48.68           N
ATOM   1545  CA  LEU   197     -12.856   5.196   6.047  1.00 48.68           C
ATOM   1546  CB  LEU   197     -12.097   5.048   4.713  1.00 48.68           C
ATOM   1547  CG  LEU   197     -10.734   4.340   4.842  1.00 48.68           C
ATOM   1548  CD1 LEU   197     -10.013   4.247   3.486  1.00 48.68           C
ATOM   1549  CD2 LEU   197      -9.867   4.992   5.929  1.00 48.68           C
ATOM   1550  C   LEU   197     -14.116   5.942   5.753  1.00 48.68           C
ATOM   1551  O   LEU   197     -14.241   7.116   6.120  1.00 48.68           O
ATOM   1552  N   VAL   198     -15.103   5.297   5.114  1.00 97.67           N
ATOM   1553  CA  VAL   198     -16.281   6.029   4.758  1.00 97.67           C
ATOM   1554  CB  VAL   198     -17.245   5.241   3.915  1.00 97.67           C
ATOM   1555  CG1 VAL   198     -16.553   4.877   2.592  1.00 97.67           C
ATOM   1556  CG2 VAL   198     -17.729   4.021   4.712  1.00 97.67           C
ATOM   1557  C   VAL   198     -16.991   6.467   5.998  1.00 97.67           C
ATOM   1558  O   VAL   198     -17.453   7.604   6.089  1.00 97.67           O
ATOM   1559  N   ILE   199     -17.067   5.586   7.008  1.00139.60           N
ATOM   1560  CA  ILE   199     -17.843   5.899   8.171  1.00139.60           C
ATOM   1561  CB  ILE   199     -17.863   4.763   9.161  1.00139.60           C
ATOM   1562  CG2 ILE   199     -18.239   3.528   8.337  1.00139.60           C
ATOM   1563  CG1 ILE   199     -16.532   4.543   9.904  1.00139.60           C
ATOM   1564  CD1 ILE   199     -16.355   5.415  11.150  1.00139.60           C
ATOM   1565  C   ILE   199     -17.251   7.108   8.818  1.00139.60           C
ATOM   1566  O   ILE   199     -17.969   8.028   9.207  1.00139.60           O
ATOM   1567  N   PHE   200     -15.917   7.124   8.957  1.00 93.49           N
ATOM   1568  CA  PHE   200     -15.254   8.215   9.591  1.00 93.49           C
ATOM   1569  CB  PHE   200     -13.770   7.923   9.851  1.00 93.49           C
ATOM   1570  CG  PHE   200     -13.209   9.132  10.511  1.00 93.49           C
ATOM   1571  CD1 PHE   200     -13.454   9.357  11.845  1.00 93.49           C
ATOM   1572  CD2 PHE   200     -12.441  10.025   9.808  1.00 93.49           C
ATOM   1573  CE1 PHE   200     -12.939  10.468  12.469  1.00 93.49           C
ATOM   1574  CE2 PHE   200     -11.918  11.139  10.429  1.00 93.49           C
ATOM   1575  CZ  PHE   200     -12.170  11.360  11.760  1.00 93.49           C
ATOM   1576  C   PHE   200     -15.324   9.429   8.728  1.00 93.49           C
ATOM   1577  O   PHE   200     -15.697  10.506   9.183  1.00 93.49           O
ATOM   1578  N   ILE   201     -14.989   9.262   7.431  1.00 92.57           N
ATOM   1579  CA  ILE   201     -14.874  10.379   6.544  1.00 92.57           C
ATOM   1580  CB  ILE   201     -14.374   9.991   5.177  1.00 92.57           C
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ATOM   1581  CG2 ILE   201     -12.960   9.415   5.346  1.00 92.57           C
ATOM   1582  CG1 ILE   201     -15.349   9.028   4.476  1.00 92.57           C
ATOM   1583  CD1 ILE   201     -15.108   8.897   2.972  1.00 92.57           C
ATOM   1584  C   ILE   201     -16.191  11.057   6.365  1.00 92.57           C
ATOM   1585  O   ILE   201     -16.280  12.281   6.460  1.00 92.57           O
ATOM   1586  N   THR   202     -17.258  10.282   6.119  1.00104.18           N
ATOM   1587  CA  THR   202     -18.521  10.898   5.841  1.00104.18           C
ATOM   1588  CB  THR   202     -19.593   9.913   5.461  1.00104.18           C
ATOM   1589  OG1 THR   202     -20.801  10.600   5.169  1.00104.18           O
ATOM   1590  CG2 THR   202     -19.809   8.919   6.613  1.00104.18           C
ATOM   1591  C   THR   202     -18.982  11.649   7.039  1.00104.18           C
ATOM   1592  O   THR   202     -19.441  12.783   6.928  1.00104.18           O
ATOM   1593  N   GLY   203     -18.855  11.033   8.226  1.00 30.91           N
ATOM   1594  CA  GLY   203     -19.330  11.634   9.436  1.00 30.91           C
ATOM   1595  C   GLY   203     -18.567  12.884   9.722  1.00 30.91           C
ATOM   1596  O   GLY   203     -19.142  13.869  10.183  1.00 30.91           O
ATOM   1597  N   GLY   204     -17.239  12.871   9.509  1.00 30.79           N
ATOM   1598  CA  GLY   204     -16.494  14.050   9.833  1.00 30.79           C
ATOM   1599  C   GLY   204     -16.891  15.180   8.936  1.00 30.79           C
ATOM   1600  O   GLY   204     -17.194  16.274   9.407  1.00 30.79           O
ATOM   1601  N   LEU   205     -16.896  14.941   7.609  1.00102.04           N
ATOM   1602  CA  LEU   205     -17.185  16.004   6.695  1.00102.04           C
ATOM   1603  CB  LEU   205     -16.903  15.640   5.219  1.00102.04           C
ATOM   1604  CG  LEU   205     -17.199  16.742   4.166  1.00102.04           C
ATOM   1605  CD1 LEU   205     -16.542  16.392   2.825  1.00102.04           C
ATOM   1606  CD2 LEU   205     -18.709  16.969   3.942  1.00102.04           C
ATOM   1607  C   LEU   205     -18.606  16.431   6.813  1.00102.04           C
ATOM   1608  O   LEU   205     -18.887  17.626   6.885  1.00102.04           O
ATOM   1609  N   THR   206     -19.555  15.480   6.803  1.00142.11           N
ATOM   1610  CA  THR   206     -20.906  15.947   6.802  1.00142.11           C
ATOM   1611  CB  THR   206     -21.932  14.866   6.534  1.00142.11           C
ATOM   1612  OG1 THR   206     -23.230  15.435   6.466  1.00142.11           O
ATOM   1613  CG2 THR   206     -21.892  13.783   7.627  1.00142.11           C
ATOM   1614  C   THR   206     -21.251  16.647   8.083  1.00142.11           C
ATOM   1615  O   THR   206     -21.728  17.780   8.041  1.00142.11           O
ATOM   1616  N   GLY   207     -21.117  15.953   9.238  1.00 75.66           N
ATOM   1617  CA  GLY   207     -21.441  16.501  10.529  1.00 75.66           C
ATOM   1618  C   GLY   207     -20.392  17.294  11.268  1.00 75.66           C
ATOM   1619  O   GLY   207     -20.621  18.436  11.656  1.00 75.66           O
ATOM   1620  N   LEU   208     -19.200  16.695  11.468  1.00 65.71           N
ATOM   1621  CA  LEU   208     -18.224  17.201  12.408  1.00 65.71           C
ATOM   1622  CB  LEU   208     -17.046  16.235  12.598  1.00 65.71           C
ATOM   1623  CG  LEU   208     -17.438  14.893  13.243  1.00 65.71           C
ATOM   1624  CD1 LEU   208     -16.210  13.983  13.388  1.00 65.71           C
ATOM   1625  CD2 LEU   208     -18.179  15.090  14.577  1.00 65.71           C
ATOM   1626  C   LEU   208     -17.639  18.526  12.046  1.00 65.71           C
ATOM   1627  O   LEU   208     -17.514  19.396  12.906  1.00 65.71           O
ATOM   1628  N   ILE   209     -17.250  18.722  10.774  1.00 89.72           N
ATOM   1629  CA  ILE   209     -16.570  19.941  10.438  1.00 89.72           C
ATOM   1630  CB  ILE   209     -16.096  19.978   9.006  1.00 89.72           C
ATOM   1631  CG2 ILE   209     -17.289  19.702   8.073  1.00 89.72           C
ATOM   1632  CG1 ILE   209     -15.353  21.298   8.723  1.00 89.72           C
ATOM   1633  CD1 ILE   209     -14.604  21.314   7.390  1.00 89.72           C
ATOM   1634  C   ILE   209     -17.475  21.110  10.657  1.00 89.72           C
ATOM   1635  O   ILE   209     -17.104  22.086  11.305  1.00 89.72           O
ATOM   1636  N   CYS   210     -18.706  21.000  10.142  1.00 77.25           N
ATOM   1637  CA  CYS   210     -19.703  22.023  10.152  1.00 77.25           C
ATOM   1638  CB  CYS   210     -20.924  21.520   9.377  1.00 77.25           C
ATOM   1639  SG  CYS   210     -22.047  22.835   8.877  1.00 77.25           S
ATOM   1640  C   CYS   210     -20.114  22.321  11.564  1.00 77.25           C
ATOM   1641  O   CYS   210     -20.342  23.475  11.924  1.00 77.25           O
ATOM   1642  N   VAL   211     -20.257  21.275  12.398  1.00 95.18           N
ATOM   1643  CA  VAL   211     -20.677  21.463  13.758  1.00 95.18           C
ATOM   1644  CB  VAL   211     -20.992  20.175  14.467  1.00 95.18           C
ATOM   1645  CG1 VAL   211     -22.176  19.510  13.745  1.00 95.18           C
ATOM   1646  CG2 VAL   211     -19.726  19.303  14.547  1.00 95.18           C
ATOM   1647  C   VAL   211     -19.632  22.183  14.557  1.00 95.18           C
ATOM   1648  O   VAL   211     -19.947  23.103  15.311  1.00 95.18           O
ATOM   1649  N   LEU   212     -18.353  21.795  14.409  1.00136.19           N
ATOM   1650  CA  LEU   212     -17.329  22.375  15.227  1.00136.19           C
ATOM   1651  CB  LEU   212     -15.946  21.750  14.967  1.00136.19           C
ATOM   1652  CG  LEU   212     -15.886  20.236  15.257  1.00136.19           C
ATOM   1653  CD1 LEU   212     -14.481  19.666  14.998  1.00136.19           C
ATOM   1654  CD2 LEU   212     -16.424  19.903  16.658  1.00136.19           C
ATOM   1655  C   LEU   212     -17.228  23.839  14.943  1.00136.19           C
ATOM   1656  O   LEU   212     -17.148  24.654  15.862  1.00136.19           O
ATOM   1657  N   CYS   213     -17.234  24.212  13.651  1.00 72.18           N
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ATOM   1658  CA  CYS   213     -17.103  25.588  13.276  1.00 72.18           C
ATOM   1659  CB  CYS   213     -16.906  25.779  11.763  1.00 72.18           C
ATOM   1660  SG  CYS   213     -18.182  24.955  10.770  1.00 72.18           S
ATOM   1661  C   CYS   213     -18.302  26.363  13.727  1.00 72.18           C
ATOM   1662  O   CYS   213     -18.178  27.489  14.206  1.00 72.18           O
ATOM   1663  N   LEU   214     -19.498  25.762  13.614  1.00 45.57           N
ATOM   1664  CA  LEU   214     -20.715  26.442  13.944  1.00 45.57           C
ATOM   1665  CB  LEU   214     -21.932  25.515  13.785  1.00 45.57           C
ATOM   1666  CG  LEU   214     -23.276  26.183  14.115  1.00 45.57           C
ATOM   1667  CD1 LEU   214     -23.623  27.241  13.055  1.00 45.57           C
ATOM   1668  CD2 LEU   214     -24.388  25.143  14.327  1.00 45.57           C
ATOM   1669  C   LEU   214     -20.658  26.846  15.384  1.00 45.57           C
ATOM   1670  O   LEU   214     -20.921  27.999  15.724  1.00 45.57           O
ATOM   1671  N   ILE   215     -20.277  25.906  16.266  1.00 75.88           N
ATOM   1672  CA  ILE   215     -20.266  26.175  17.672  1.00 75.88           C
ATOM   1673  CB  ILE   215     -19.970  24.952  18.500  1.00 75.88           C
ATOM   1674  CG2 ILE   215     -18.528  24.485  18.231  1.00 75.88           C
ATOM   1675  CG1 ILE   215     -20.282  25.223  19.979  1.00 75.88           C
ATOM   1676  CD1 ILE   215     -20.314  23.954  20.831  1.00 75.88           C
ATOM   1677  C   ILE   215     -19.253  27.233  17.983  1.00 75.88           C
ATOM   1678  O   ILE   215     -19.533  28.160  18.741  1.00 75.88           O
ATOM   1679  N   ILE   216     -18.047  27.129  17.394  1.00 76.94           N
ATOM   1680  CA  ILE   216     -17.003  28.058  17.707  1.00 76.94           C
ATOM   1681  CB  ILE   216     -15.677  27.673  17.103  1.00 76.94           C
ATOM   1682  CG2 ILE   216     -15.789  27.715  15.569  1.00 76.94           C
ATOM   1683  CG1 ILE   216     -14.552  28.546  17.685  1.00 76.94           C
ATOM   1684  CD1 ILE   216     -13.145  28.029  17.384  1.00 76.94           C
ATOM   1685  C   ILE   216     -17.376  29.432  17.241  1.00 76.94           C
ATOM   1686  O   ILE   216     -17.225  30.404  17.978  1.00 76.94           O
ATOM   1687  N   SER   217     -17.883  29.559  16.004  1.00 29.58           N
ATOM   1688  CA  SER   217     -18.199  30.859  15.489  1.00 29.58           C
ATOM   1689  CB  SER   217     -18.581  30.844  14.000  1.00 29.58           C
ATOM   1690  OG  SER   217     -17.473  30.414  13.222  1.00 29.58           O
ATOM   1691  C   SER   217     -19.362  31.436  16.234  1.00 29.58           C
ATOM   1692  O   SER   217     -19.411  32.633  16.502  1.00 29.58           O
ATOM   1693  N   TYR   218     -20.342  30.593  16.588  1.00 87.05           N
ATOM   1694  CA  TYR   218     -21.530  31.088  17.213  1.00 87.05           C
ATOM   1695  CB  TYR   218     -22.645  30.035  17.310  1.00 87.05           C
ATOM   1696  CG  TYR   218     -23.909  30.818  17.323  1.00 87.05           C
ATOM   1697  CD1 TYR   218     -24.385  31.307  16.127  1.00 87.05           C
ATOM   1698  CD2 TYR   218     -24.608  31.071  18.476  1.00 87.05           C
ATOM   1699  CE1 TYR   218     -25.544  32.039  16.061  1.00 87.05           C
ATOM   1700  CE2 TYR   218     -25.770  31.805  18.414  1.00 87.05           C
ATOM   1701  CZ  TYR   218     -26.234  32.293  17.216  1.00 87.05           C
ATOM   1702  OH  TYR   218     -27.425  33.045  17.170  1.00 87.05           O
ATOM   1703  C   TYR   218     -21.202  31.576  18.590  1.00 87.05           C
ATOM   1704  O   TYR   218     -21.844  32.498  19.088  1.00 87.05           O
ATOM   1705  N   THR   219     -20.236  30.936  19.278  1.00 96.45           N
ATOM   1706  CA  THR   219     -19.916  31.373  20.608  1.00 96.45           C
ATOM   1707  CB  THR   219     -18.910  30.511  21.329  1.00 96.45           C
ATOM   1708  OG1 THR   219     -18.855  30.873  22.703  1.00 96.45           O
ATOM   1709  CG2 THR   219     -17.527  30.683  20.686  1.00 96.45           C
ATOM   1710  C   THR   219     -19.380  32.774  20.542  1.00 96.45           C
ATOM   1711  O   THR   219     -19.709  33.598  21.393  1.00 96.45           O
ATOM   1712  N   ASN   220     -18.549  33.087  19.521  1.00106.07           N
ATOM   1713  CA  ASN   220     -17.965  34.398  19.408  1.00106.07           C
ATOM   1714  CB  ASN   220     -16.852  34.536  18.337  1.00106.07           C
ATOM   1715  CG  ASN   220     -17.403  34.437  16.926  1.00106.07           C
ATOM   1716  OD1 ASN   220     -18.281  35.201  16.529  1.00106.07           O
ATOM   1717  ND2 ASN   220     -16.864  33.473  16.131  1.00106.07           N
ATOM   1718  C   ASN   220     -19.048  35.401  19.152  1.00106.07           C
ATOM   1719  O   ASN   220     -18.914  36.573  19.496  1.00106.07           O
ATOM   1720  N   VAL   221     -20.140  34.966  18.496  1.00 39.72           N
ATOM   1721  CA  VAL   221     -21.264  35.818  18.233  1.00 39.72           C
ATOM   1722  CB  VAL   221     -22.353  35.091  17.498  1.00 39.72           C
ATOM   1723  CG1 VAL   221     -23.583  36.004  17.379  1.00 39.72           C
ATOM   1724  CG2 VAL   221     -21.786  34.613  16.151  1.00 39.72           C
ATOM   1725  C   VAL   221     -21.819  36.256  19.557  1.00 39.72           C
ATOM   1726  O   VAL   221     -22.167  37.421  19.740  1.00 39.72           O
ATOM   1727  N   PHE   222     -21.906  35.320  20.524  1.00 56.71           N
ATOM   1728  CA  PHE   222     -22.440  35.617  21.825  1.00 56.71           C
ATOM   1729  CB  PHE   222     -22.405  34.424  22.799  1.00 56.71           C
ATOM   1730  CG  PHE   222     -23.242  33.298  22.306  1.00 56.71           C
ATOM   1731  CD1 PHE   222     -24.616  33.368  22.333  1.00 56.71           C
ATOM   1732  CD2 PHE   222     -22.641  32.149  21.844  1.00 56.71           C
ATOM   1733  CE1 PHE   222     -25.380  32.314  21.889  1.00 56.71           C
ATOM   1734  CE2 PHE   222     -23.398  31.093  21.400  1.00 56.71           C
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ATOM   1735  CZ  PHE   222     -24.771  31.176  21.420  1.00 56.71           C
ATOM   1736  C   PHE   222     -21.572  36.641  22.488  1.00 56.71           C
ATOM   1737  O   PHE   222     -22.061  37.619  23.050  1.00 56.71           O
ATOM   1738  N   SER   223     -20.244  36.446  22.450  1.00 26.16           N
ATOM   1739  CA  SER   223     -19.409  37.375  23.148  1.00 26.16           C
ATOM   1740  CB  SER   223     -17.912  37.019  23.087  1.00 26.16           C
ATOM   1741  OG  SER   223     -17.441  37.100  21.752  1.00 26.16           O
ATOM   1742  C   SER   223     -19.585  38.729  22.545  1.00 26.16           C
ATOM   1743  O   SER   223     -19.685  39.725  23.259  1.00 26.16           O
ATOM   1744  N   THR   224     -19.653  38.809  21.205  1.00101.50           N
ATOM   1745  CA  THR   224     -19.751  40.100  20.592  1.00101.50           C
ATOM   1746  CB  THR   224     -19.748  40.040  19.094  1.00101.50           C
ATOM   1747  OG1 THR   224     -20.913  39.377  18.624  1.00101.50           O
ATOM   1748  CG2 THR   224     -18.488  39.283  18.641  1.00101.50           C
ATOM   1749  C   THR   224     -21.034  40.744  21.013  1.00101.50           C
ATOM   1750  O   THR   224     -21.057  41.910  21.406  1.00101.50           O
ATOM   1751  N   ILE   225     -22.143  39.986  20.969  1.00 96.99           N
ATOM   1752  CA  ILE   225     -23.414  40.566  21.287  1.00 96.99           C
ATOM   1753  CB  ILE   225     -24.588  39.652  21.079  1.00 96.99           C
ATOM   1754  CG2 ILE   225     -24.454  38.443  22.011  1.00 96.99           C
ATOM   1755  CG1 ILE   225     -25.902  40.429  21.273  1.00 96.99           C
ATOM   1756  CD1 ILE   225     -27.141  39.619  20.895  1.00 96.99           C
ATOM   1757  C   ILE   225     -23.441  41.021  22.708  1.00 96.99           C
ATOM   1758  O   ILE   225     -23.936  42.109  22.992  1.00 96.99           O
ATOM   1759  N   LEU   226     -22.895  40.223  23.643  1.00129.11           N
ATOM   1760  CA  LEU   226     -23.000  40.606  25.022  1.00129.11           C
ATOM   1761  CB  LEU   226     -22.323  39.601  25.983  1.00129.11           C
ATOM   1762  CG  LEU   226     -22.398  39.951  27.490  1.00129.11           C
ATOM   1763  CD1 LEU   226     -21.465  41.107  27.891  1.00129.11           C
ATOM   1764  CD2 LEU   226     -23.854  40.189  27.926  1.00129.11           C
ATOM   1765  C   LEU   226     -22.332  41.923  25.207  1.00129.11           C
ATOM   1766  O   LEU   226     -22.878  42.824  25.843  1.00129.11           O
ATOM   1767  N   LYS   227     -21.135  42.089  24.624  1.00112.16           N
ATOM   1768  CA  LYS   227     -20.417  43.291  24.903  1.00112.16           C
ATOM   1769  CB  LYS   227     -18.994  43.289  24.307  1.00112.16           C
ATOM   1770  CG  LYS   227     -18.950  42.937  22.820  1.00112.16           C
ATOM   1771  CD  LYS   227     -17.601  43.190  22.144  1.00112.16           C
ATOM   1772  CE  LYS   227     -17.523  44.541  21.435  1.00112.16           C
ATOM   1773  NZ  LYS   227     -16.323  44.588  20.573  1.00112.16           N
ATOM   1774  C   LYS   227     -21.148  44.510  24.434  1.00112.16           C
ATOM   1775  O   LYS   227     -21.331  45.448  25.209  1.00112.16           O
ATOM   1776  N   ILE   228     -21.614  44.544  23.171  1.00 81.06           N
ATOM   1777  CA  ILE   228     -22.132  45.808  22.732  1.00 81.06           C
ATOM   1778  CB  ILE   228     -22.224  45.919  21.227  1.00 81.06           C
ATOM   1779  CG2 ILE   228     -22.954  47.229  20.884  1.00 81.06           C
ATOM   1780  CG1 ILE   228     -20.824  45.817  20.597  1.00 81.06           C
ATOM   1781  CD1 ILE   228     -20.838  45.626  19.080  1.00 81.06           C
ATOM   1782  C   ILE   228     -23.437  46.216  23.378  1.00 81.06           C
ATOM   1783  O   ILE   228     -23.473  47.306  23.959  1.00 81.06           O
ATOM   1784  N   PRO   229     -24.511  45.456  23.366  1.00135.78           N
ATOM   1785  CA  PRO   229     -25.715  46.035  23.930  1.00135.78           C
ATOM   1786  CD  PRO   229     -24.823  44.718  22.147  1.00135.78           C
ATOM   1787  CB  PRO   229     -26.881  45.554  23.070  1.00135.78           C
ATOM   1788  CG  PRO   229     -26.237  45.147  21.740  1.00135.78           C
ATOM   1789  C   PRO   229     -25.985  45.746  25.368  1.00135.78           C
ATOM   1790  O   PRO   229     -25.519  44.727  25.874  1.00135.78           O
ATOM   1791  N   SER   230     -26.734  46.637  26.049  1.00129.20           N
ATOM   1792  CA  SER   230     -27.186  46.331  27.373  1.00129.20           C
ATOM   1793  CB  SER   230     -27.763  47.548  28.114  1.00129.20           C
ATOM   1794  OG  SER   230     -26.739  48.503  28.350  1.00129.20           O
ATOM   1795  C   SER   230     -28.279  45.311  27.244  1.00129.20           C
ATOM   1796  O   SER   230     -28.196  44.216  27.798  1.00129.20           O
ATOM   1797  N   ALA   231     -29.337  45.654  26.476  1.00 40.28           N
ATOM   1798  CA  ALA   231     -30.448  44.764  26.281  1.00 40.28           C
ATOM   1799  CB  ALA   231     -31.666  45.109  27.156  1.00 40.28           C
ATOM   1800  C   ALA   231     -30.892  44.928  24.864  1.00 40.28           C
ATOM   1801  O   ALA   231     -30.846  46.028  24.318  1.00 40.28           O
ATOM   1802  N   GLN   232     -31.329  43.830  24.217  1.00 96.57           N
ATOM   1803  CA  GLN   232     -31.766  43.977  22.861  1.00 96.57           C
ATOM   1804  CB  GLN   232     -30.624  43.868  21.827  1.00 96.57           C
ATOM   1805  CG  GLN   232     -29.610  45.019  21.843  1.00 96.57           C
ATOM   1806  CD  GLN   232     -30.086  46.106  20.887  1.00 96.57           C
ATOM   1807  OE1 GLN   232     -29.375  47.071  20.609  1.00 96.57           O
ATOM   1808  NE2 GLN   232     -31.329  45.941  20.362  1.00 96.57           N
ATOM   1809  C   GLN   232     -32.707  42.867  22.536  1.00 96.57           C
ATOM   1810  O   GLN   232     -32.567  41.745  23.021  1.00 96.57           O
ATOM   1811  N   GLY   233     -33.719  43.179  21.707  1.00 24.78           N
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ATOM   1812  CA  GLY   233     -34.605  42.180  21.194  1.00 24.78           C
ATOM   1813  C   GLY   233     -33.770  41.336  20.287  1.00 24.78           C
ATOM   1814  O   GLY   233     -33.969  40.129  20.161  1.00 24.78           O
ATOM   1815  N   LYS   234     -32.800  41.992  19.624  1.00127.36           N
ATOM   1816  CA  LYS   234     -31.934  41.360  18.676  1.00127.36           C
ATOM   1817  CB  LYS   234     -30.899  42.328  18.085  1.00127.36           C
ATOM   1818  CG  LYS   234     -31.531  43.458  17.273  1.00127.36           C
ATOM   1819  CD  LYS   234     -32.383  42.962  16.102  1.00127.36           C
ATOM   1820  CE  LYS   234     -33.879  42.892  16.410  1.00127.36           C
ATOM   1821  NZ  LYS   234     -34.513  44.197  16.117  1.00127.36           N
ATOM   1822  C   LYS   234     -31.186  40.275  19.377  1.00127.36           C
ATOM   1823  O   LYS   234     -30.892  39.239  18.784  1.00127.36           O
ATOM   1824  N   ARG   235     -30.833  40.491  20.657  1.00 97.11           N
ATOM   1825  CA  ARG   235     -30.117  39.468  21.357  1.00 97.11           C
ATOM   1826  CB  ARG   235     -29.725  39.827  22.797  1.00 97.11           C
ATOM   1827  CG  ARG   235     -28.964  38.671  23.453  1.00 97.11           C
ATOM   1828  CD  ARG   235     -28.551  38.898  24.906  1.00 97.11           C
ATOM   1829  NE  ARG   235     -27.965  37.614  25.385  1.00 97.11           N
ATOM   1830  CZ  ARG   235     -27.135  37.591  26.467  1.00 97.11           C
ATOM   1831  NH1 ARG   235     -26.808  38.754  27.106  1.00 97.11           N
ATOM   1832  NH2 ARG   235     -26.642  36.403  26.923  1.00 97.11           N
ATOM   1833  C   ARG   235     -31.003  38.274  21.460  1.00 97.11           C
ATOM   1834  O   ARG   235     -30.549  37.140  21.321  1.00 97.11           O
ATOM   1835  N   LYS   236     -32.305  38.499  21.715  1.00 61.98           N
ATOM   1836  CA  LYS   236     -33.202  37.392  21.835  1.00 61.98           C
ATOM   1837  CB  LYS   236     -34.635  37.799  22.205  1.00 61.98           C
ATOM   1838  CG  LYS   236     -34.725  38.420  23.599  1.00 61.98           C
ATOM   1839  CD  LYS   236     -36.089  39.025  23.912  1.00 61.98           C
ATOM   1840  CE  LYS   236     -36.503  40.140  22.952  1.00 61.98           C
ATOM   1841  NZ  LYS   236     -37.782  40.729  23.404  1.00 61.98           N
ATOM   1842  C   LYS   236     -33.228  36.684  20.518  1.00 61.98           C
ATOM   1843  O   LYS   236     -33.313  35.459  20.467  1.00 61.98           O
ATOM   1844  N   ALA   237     -33.142  37.439  19.408  1.00 24.85           N
ATOM   1845  CA  ALA   237     -33.183  36.823  18.112  1.00 24.85           C
ATOM   1846  CB  ALA   237     -33.051  37.835  16.963  1.00 24.85           C
ATOM   1847  C   ALA   237     -32.025  35.882  18.001  1.00 24.85           C
ATOM   1848  O   ALA   237     -32.162  34.781  17.470  1.00 24.85           O
ATOM   1849  N   PHE   238     -30.848  36.295  18.508  1.00 98.22           N
ATOM   1850  CA  PHE   238     -29.671  35.478  18.422  1.00 98.22           C
ATOM   1851  CB  PHE   238     -28.378  36.168  18.881  1.00 98.22           C
ATOM   1852  CG  PHE   238     -28.091  37.205  17.856  1.00 98.22           C
ATOM   1853  CD1 PHE   238     -27.610  36.848  16.615  1.00 98.22           C
ATOM   1854  CD2 PHE   238     -28.298  38.534  18.138  1.00 98.22           C
ATOM   1855  CE1 PHE   238     -27.346  37.807  15.669  1.00 98.22           C
ATOM   1856  CE2 PHE   238     -28.035  39.496  17.193  1.00 98.22           C
ATOM   1857  CZ  PHE   238     -27.562  39.133  15.956  1.00 98.22           C
ATOM   1858  C   PHE   238     -29.854  34.243  19.237  1.00 98.22           C
ATOM   1859  O   PHE   238     -29.363  33.180  18.864  1.00 98.22           O
ATOM   1860  N   SER   239     -30.535  34.347  20.392  1.00 70.20           N
ATOM   1861  CA  SER   239     -30.712  33.180  21.207  1.00 70.20           C
ATOM   1862  CB  SER   239     -31.420  33.456  22.545  1.00 70.20           C
ATOM   1863  OG  SER   239     -32.793  33.744  22.328  1.00 70.20           O
ATOM   1864  C   SER   239     -31.543  32.182  20.456  1.00 70.20           C
ATOM   1865  O   SER   239     -31.310  30.978  20.559  1.00 70.20           O
ATOM   1866  N   THR   240     -32.528  32.659  19.667  1.00 31.01           N
ATOM   1867  CA  THR   240     -33.387  31.766  18.940  1.00 31.01           C
ATOM   1868  CB  THR   240     -34.426  32.469  18.111  1.00 31.01           C
ATOM   1869  OG1 THR   240     -35.274  33.256  18.937  1.00 31.01           O
ATOM   1870  CG2 THR   240     -35.251  31.411  17.358  1.00 31.01           C
ATOM   1871  C   THR   240     -32.545  30.969  17.997  1.00 31.01           C
ATOM   1872  O   THR   240     -32.701  29.753  17.894  1.00 31.01           O
ATOM   1873  N   CYS   241     -31.616  31.635  17.289  1.00 26.16           N
ATOM   1874  CA  CYS   241     -30.772  30.935  16.365  1.00 26.16           C
ATOM   1875  CB  CYS   241     -29.801  31.865  15.614  1.00 26.16           C
ATOM   1876  SG  CYS   241     -30.665  33.038  14.527  1.00 26.16           S
ATOM   1877  C   CYS   241     -29.952  29.959  17.145  1.00 26.16           C
ATOM   1878  O   CYS   241     -29.756  28.823  16.720  1.00 26.16           O
ATOM   1879  N   SER   242     -29.475  30.375  18.333  1.00 75.66           N
ATOM   1880  CA  SER   242     -28.650  29.530  19.147  1.00 75.66           C
ATOM   1881  CB  SER   242     -28.331  30.142  20.523  1.00 75.66           C
ATOM   1882  OG  SER   242     -27.673  31.392  20.392  1.00 75.66           O
ATOM   1883  C   SER   242     -29.436  28.298  19.457  1.00 75.66           C
ATOM   1884  O   SER   242     -28.886  27.200  19.519  1.00 75.66           O
ATOM   1885  N   SER   243     -30.753  28.472  19.676  1.00 74.85           N
ATOM   1886  CA  SER   243     -31.643  27.410  20.045  1.00 74.85           C
ATOM   1887  CB  SER   243     -33.077  27.918  20.275  1.00 74.85           C
ATOM   1888  OG  SER   243     -33.959  26.829  20.508  1.00 74.85           O
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ATOM   1889  C   SER   243     -31.710  26.399  18.951  1.00 74.85           C
ATOM   1890  O   SER   243     -31.608  25.199  19.195  1.00 74.85           O
ATOM   1891  N   HIS   244     -31.874  26.863  17.701  1.00103.51           N
ATOM   1892  CA  HIS   244     -32.003  25.947  16.611  1.00103.51           C
ATOM   1893  ND1 HIS   244     -32.611  24.421  14.106  1.00103.51           N
ATOM   1894  CG  HIS   244     -32.281  25.756  14.081  1.00103.51           C
ATOM   1895  CB  HIS   244     -32.306  26.661  15.277  1.00103.51           C
ATOM   1896  NE2 HIS   244     -32.043  24.898  12.010  1.00103.51           N
ATOM   1897  CD2 HIS   244     -31.944  26.034  12.794  1.00103.51           C
ATOM   1898  CE1 HIS   244     -32.446  23.956  12.840  1.00103.51           C
ATOM   1899  C   HIS   244     -30.748  25.144  16.494  1.00103.51           C
ATOM   1900  O   HIS   244     -30.790  23.926  16.328  1.00103.51           O
ATOM   1901  N   LEU   245     -29.589  25.810  16.596  1.00 94.34           N
ATOM   1902  CA  LEU   245     -28.337  25.129  16.449  1.00 94.34           C
ATOM   1903  CB  LEU   245     -27.161  26.111  16.330  1.00 94.34           C
ATOM   1904  CG  LEU   245     -27.149  26.813  14.955  1.00 94.34           C
ATOM   1905  CD1 LEU   245     -28.473  27.539  14.665  1.00 94.34           C
ATOM   1906  CD2 LEU   245     -25.936  27.739  14.813  1.00 94.34           C
ATOM   1907  C   LEU   245     -28.102  24.156  17.565  1.00 94.34           C
ATOM   1908  O   LEU   245     -27.674  23.028  17.327  1.00 94.34           O
ATOM   1909  N   SER   246     -28.393  24.557  18.813  1.00 72.62           N
ATOM   1910  CA  SER   246     -28.141  23.719  19.949  1.00 72.62           C
ATOM   1911  CB  SER   246     -28.422  24.456  21.270  1.00 72.62           C
ATOM   1912  OG  SER   246     -27.560  25.581  21.387  1.00 72.62           O
ATOM   1913  C   SER   246     -29.012  22.499  19.888  1.00 72.62           C
ATOM   1914  O   SER   246     -28.554  21.386  20.138  1.00 72.62           O
ATOM   1915  N   VAL   247     -30.298  22.675  19.534  1.00 80.79           N
ATOM   1916  CA  VAL   247     -31.219  21.574  19.511  1.00 80.79           C
ATOM   1917  CB  VAL   247     -32.626  22.006  19.200  1.00 80.79           C
ATOM   1918  CG1 VAL   247     -32.687  22.523  17.755  1.00 80.79           C
ATOM   1919  CG2 VAL   247     -33.576  20.832  19.480  1.00 80.79           C
ATOM   1920  C   VAL   247     -30.772  20.574  18.483  1.00 80.79           C
ATOM   1921  O   VAL   247     -30.803  19.369  18.724  1.00 80.79           O
ATOM   1922  N   VAL   248     -30.323  21.046  17.306  1.00 32.78           N
ATOM   1923  CA  VAL   248     -29.905  20.150  16.268  1.00 32.78           C
ATOM   1924  CB  VAL   248     -29.458  20.851  15.019  1.00 32.78           C
ATOM   1925  CG1 VAL   248     -28.895  19.792  14.055  1.00 32.78           C
ATOM   1926  CG2 VAL   248     -30.640  21.652  14.445  1.00 32.78           C
ATOM   1927  C   VAL   248     -28.737  19.364  16.771  1.00 32.78           C
ATOM   1928  O   VAL   248     -28.620  18.170  16.505  1.00 32.78           O
ATOM   1929  N   SER   249     -27.841  20.030  17.521  1.00 37.43           N
ATOM   1930  CA  SER   249     -26.646  19.419  18.023  1.00 37.43           C
ATOM   1931  CB  SER   249     -25.819  20.394  18.883  1.00 37.43           C
ATOM   1932  OG  SER   249     -25.389  21.504  18.109  1.00 37.43           O
ATOM   1933  C   SER   249     -26.993  18.256  18.901  1.00 37.43           C
ATOM   1934  O   SER   249     -26.511  17.145  18.686  1.00 37.43           O
ATOM   1935  N   LEU   250     -27.859  18.471  19.910  1.00 87.86           N
ATOM   1936  CA  LEU   250     -28.147  17.411  20.834  1.00 87.86           C
ATOM   1937  CB  LEU   250     -28.968  17.828  22.067  1.00 87.86           C
ATOM   1938  CG  LEU   250     -28.150  18.644  23.086  1.00 87.86           C
ATOM   1939  CD1 LEU   250     -27.774  20.023  22.530  1.00 87.86           C
ATOM   1940  CD2 LEU   250     -28.845  18.699  24.456  1.00 87.86           C
ATOM   1941  C   LEU   250     -28.846  16.272  20.162  1.00 87.86           C
ATOM   1942  O   LEU   250     -28.579  15.117  20.486  1.00 87.86           O
ATOM   1943  N   PHE   251     -29.769  16.551  19.222  1.00 57.72           N
ATOM   1944  CA  PHE   251     -30.493  15.477  18.594  1.00 57.72           C
ATOM   1945  CB  PHE   251     -31.630  15.959  17.671  1.00 57.72           C
ATOM   1946  CG  PHE   251     -32.773  16.348  18.548  1.00 57.72           C
ATOM   1947  CD1 PHE   251     -32.875  17.606  19.089  1.00 57.72           C
ATOM   1948  CD2 PHE   251     -33.758  15.431  18.835  1.00 57.72           C
ATOM   1949  CE1 PHE   251     -33.939  17.937  19.898  1.00 57.72           C
ATOM   1950  CE2 PHE   251     -34.820  15.749  19.645  1.00 57.72           C
ATOM   1951  CZ  PHE   251     -34.911  17.010  20.179  1.00 57.72           C
ATOM   1952  C   PHE   251     -29.588  14.579  17.796  1.00 57.72           C
ATOM   1953  O   PHE   251     -29.720  13.357  17.858  1.00 57.72           O
ATOM   1954  N   PHE   252     -28.696  15.174  16.981  1.00 75.18           N
ATOM   1955  CA  PHE   252     -27.749  14.516  16.115  1.00 75.18           C
ATOM   1956  CB  PHE   252     -27.166  15.471  15.061  1.00 75.18           C
ATOM   1957  CG  PHE   252     -28.215  15.690  14.035  1.00 75.18           C
ATOM   1958  CD1 PHE   252     -29.210  16.616  14.228  1.00 75.18           C
ATOM   1959  CD2 PHE   252     -28.208  14.942  12.883  1.00 75.18           C
ATOM   1960  CE1 PHE   252     -30.179  16.807  13.272  1.00 75.18           C
ATOM   1961  CE2 PHE   252     -29.173  15.135  11.929  1.00 75.18           C
ATOM   1962  CZ  PHE   252     -30.166  16.065  12.118  1.00 75.18           C
ATOM   1963  C   PHE   252     -26.559  13.911  16.809  1.00 75.18           C
ATOM   1964  O   PHE   252     -26.083  12.850  16.411  1.00 75.18           O
ATOM   1965  N   GLY   253     -26.038  14.562  17.864  1.00 37.45           N
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ATOM   1966  CA  GLY   253     -24.755  14.191  18.403  1.00 37.45           C
ATOM   1967  C   GLY   253     -24.693  12.753  18.810  1.00 37.45           C
ATOM   1968  O   GLY   253     -23.701  12.078  18.537  1.00 37.45           O
ATOM   1969  N   THR   254     -25.739  12.229  19.463  1.00 39.89           N
ATOM   1970  CA  THR   254     -25.664  10.879  19.932  1.00 39.89           C
ATOM   1971  CB  THR   254     -26.924  10.446  20.615  1.00 39.89           C
ATOM   1972  OG1 THR   254     -28.014  10.531  19.710  1.00 39.89           O
ATOM   1973  CG2 THR   254     -27.172  11.361  21.823  1.00 39.89           C
ATOM   1974  C   THR   254     -25.450   9.962  18.769  1.00 39.89           C
ATOM   1975  O   THR   254     -24.634   9.045  18.843  1.00 39.89           O
ATOM   1976  N   SER   255     -26.168  10.194  17.657  1.00 83.40           N
ATOM   1977  CA  SER   255     -26.080   9.324  16.523  1.00 83.40           C
ATOM   1978  CB  SER   255     -26.991   9.761  15.366  1.00 83.40           C
ATOM   1979  OG  SER   255     -26.865   8.849  14.284  1.00 83.40           O
ATOM   1980  C   SER   255     -24.679   9.323  15.995  1.00 83.40           C
ATOM   1981  O   SER   255     -24.134   8.267  15.683  1.00 83.40           O
ATOM   1982  N   PHE   256     -24.052  10.509  15.896  1.00 67.66           N
ATOM   1983  CA  PHE   256     -22.742  10.615  15.313  1.00 67.66           C
ATOM   1984  CB  PHE   256     -22.281  12.062  15.067  1.00 67.66           C
ATOM   1985  CG  PHE   256     -23.049  12.550  13.885  1.00 67.66           C
ATOM   1986  CD1 PHE   256     -22.666  12.197  12.613  1.00 67.66           C
ATOM   1987  CD2 PHE   256     -24.152  13.360  14.039  1.00 67.66           C
ATOM   1988  CE1 PHE   256     -23.366  12.641  11.514  1.00 67.66           C
ATOM   1989  CE2 PHE   256     -24.855  13.806  12.942  1.00 67.66           C
ATOM   1990  CZ  PHE   256     -24.466  13.448  11.674  1.00 67.66           C
ATOM   1991  C   PHE   256     -21.711   9.914  16.135  1.00 67.66           C
ATOM   1992  O   PHE   256     -20.775   9.333  15.586  1.00 67.66           O
ATOM   1993  N   CYS   257     -21.825   9.972  17.473  1.00 69.62           N
ATOM   1994  CA  CYS   257     -20.838   9.316  18.280  1.00 69.62           C
ATOM   1995  CB  CYS   257     -21.076   9.476  19.794  1.00 69.62           C
ATOM   1996  SG  CYS   257     -19.785   8.657  20.780  1.00 69.62           S
ATOM   1997  C   CYS   257     -20.895   7.850  17.968  1.00 69.62           C
ATOM   1998  O   CYS   257     -19.861   7.200  17.813  1.00 69.62           O
ATOM   1999  N   VAL   258     -22.121   7.304  17.830  1.00 45.25           N
ATOM   2000  CA  VAL   258     -22.344   5.905  17.586  1.00 45.25           C
ATOM   2001  CB  VAL   258     -23.803   5.548  17.495  1.00 45.25           C
ATOM   2002  CG1 VAL   258     -23.922   4.064  17.105  1.00 45.25           C
ATOM   2003  CG2 VAL   258     -24.478   5.893  18.834  1.00 45.25           C
ATOM   2004  C   VAL   258     -21.721   5.512  16.285  1.00 45.25           C
ATOM   2005  O   VAL   258     -21.149   4.428  16.171  1.00 45.25           O
ATOM   2006  N   ASP   259     -21.809   6.391  15.269  1.00 52.62           N
ATOM   2007  CA  ASP   259     -21.285   6.069  13.977  1.00 52.62           C
ATOM   2008  CB  ASP   259     -21.348   7.260  13.003  1.00 52.62           C
ATOM   2009  CG  ASP   259     -22.799   7.546  12.645  1.00 52.62           C
ATOM   2010  OD1 ASP   259     -23.478   6.626  12.129  1.00 52.62           O
ATOM   2011  OD2 ASP   259     -23.250   8.704  12.889  1.00 52.62           O
ATOM   2012  C   ASP   259     -19.843   5.757  14.160  1.00 52.62           C
ATOM   2013  O   ASP   259     -19.352   4.751  13.657  1.00 52.62           O
ATOM   2014  N   PHE   260     -19.126   6.600  14.918  1.00 86.87           N
ATOM   2015  CA  PHE   260     -17.731   6.363  15.124  1.00 86.87           C
ATOM   2016  CB  PHE   260     -17.042   7.464  15.949  1.00 86.87           C
ATOM   2017  CG  PHE   260     -17.038   8.719  15.144  1.00 86.87           C
ATOM   2018  CD1 PHE   260     -16.081   8.918  14.174  1.00 86.87           C
ATOM   2019  CD2 PHE   260     -17.995   9.686  15.347  1.00 86.87           C
ATOM   2020  CE1 PHE   260     -16.076  10.074  13.429  1.00 86.87           C
ATOM   2021  CE2 PHE   260     -17.994  10.845  14.605  1.00 86.87           C
ATOM   2022  CZ  PHE   260     -17.031  11.040  13.644  1.00 86.87           C
ATOM   2023  C   PHE   260     -17.578   5.086  15.882  1.00 86.87           C
ATOM   2024  O   PHE   260     -16.738   4.251  15.559  1.00 86.87           O
ATOM   2025  N   SER   261     -18.428   4.883  16.901  1.00 79.59           N
ATOM   2026  CA  SER   261     -18.264   3.763  17.777  1.00 79.59           C
ATOM   2027  CB  SER   261     -19.398   3.649  18.809  1.00 79.59           C
ATOM   2028  OG  SER   261     -19.181   2.520  19.644  1.00 79.59           O
ATOM   2029  C   SER   261     -18.250   2.476  17.011  1.00 79.59           C
ATOM   2030  O   SER   261     -17.309   1.696  17.147  1.00 79.59           O
ATOM   2031  N   SER   262     -19.268   2.224  16.166  1.00 83.92           N
ATOM   2032  CA  SER   262     -19.354   0.920  15.570  1.00 83.92           C
ATOM   2033  CB  SER   262     -20.605   0.734  14.684  1.00 83.92           C
ATOM   2034  OG  SER   262     -21.781   0.899  15.459  1.00 83.92           O
ATOM   2035  C   SER   262     -18.122   0.549  14.784  1.00 83.92           C
ATOM   2036  O   SER   262     -17.227  -0.081  15.338  1.00 83.92           O
ATOM   2037  N   PRO   263     -18.006   0.907  13.530  1.00144.84           N
ATOM   2038  CA  PRO   263     -16.895   0.457  12.740  1.00144.84           C
ATOM   2039  CD  PRO   263     -18.554   2.141  13.005  1.00144.84           C
ATOM   2040  CB  PRO   263     -17.053   1.145  11.391  1.00144.84           C
ATOM   2041  CG  PRO   263     -17.697   2.485  11.780  1.00144.84           C
ATOM   2042  C   PRO   263     -15.592   0.838  13.354  1.00144.84           C
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ATOM   2043  O   PRO   263     -14.663   0.033  13.309  1.00144.84          O
ATOM   2044  N   SER   264     -15.482   2.059  13.907  1.00114.56          N
ATOM   2045  CA  SER   264     -14.193   2.411  14.413  1.00114.56          C
ATOM   2046  CB  SER   264     -14.096   3.848  14.949  1.00114.56          C
ATOM   2047  OG  SER   264     -12.787   4.091  15.438  1.00114.56          O
ATOM   2048  C   SER   264     -13.799   1.506  15.534  1.00114.56          C
ATOM   2049  O   SER   264     -13.100   0.515  15.333  1.00114.56          O
ATOM   2050  N   THR   265     -14.261   1.838  16.758  1.00121.02          N
ATOM   2051  CA  THR   265     -13.840   1.122  17.928  1.00121.02          C
ATOM   2052  CB  THR   265     -14.189   1.820  19.217  1.00121.02          C
ATOM   2053  OG1 THR   265     -13.623   1.120  20.316  1.00121.02          O
ATOM   2054  CG2 THR   265     -15.716   1.919  19.371  1.00121.02          C
ATOM   2055  C   THR   265     -14.379  -0.272  17.992  1.00121.02          C
ATOM   2056  O   THR   265     -13.612  -1.220  18.155  1.00121.02          O
ATOM   2057  N   HIS   266     -15.706  -0.456  17.848  1.00 85.02          N
ATOM   2058  CA  HIS   266     -16.198  -1.793  17.995  1.00 85.02          C
ATOM   2059  ND1 HIS   266     -17.315  -4.561  19.369  1.00 85.02          N
ATOM   2060  CG  HIS   266     -16.286  -3.697  19.669  1.00 85.02          C
ATOM   2061  CB  HIS   266     -16.316  -2.215  19.467  1.00 85.02          C
ATOM   2062  NE2 HIS   266     -15.655  -5.805  20.174  1.00 85.02          N
ATOM   2063  CD2 HIS   266     -15.281  -4.475  20.161  1.00 85.02          C
ATOM   2064  CE1 HIS   266     -16.886  -5.807  19.689  1.00 85.02          C
ATOM   2065  C   HIS   266     -17.574  -1.826  17.412  1.00 85.02          C
ATOM   2066  O   HIS   266     -18.325  -0.859  17.522  1.00 85.02          O
ATOM   2067  N   SER   267     -17.941  -2.950  16.771  1.00105.36          N
ATOM   2068  CA  SER   267     -19.208  -3.042  16.104  1.00105.36          C
ATOM   2069  CB  SER   267     -19.344  -4.344  15.298  1.00105.36          C
ATOM   2070  OG  SER   267     -18.349  -4.381  14.281  1.00105.36          O
ATOM   2071  C   SER   267     -20.315  -2.982  17.107  1.00105.36          C
ATOM   2072  O   SER   267     -21.380  -2.431  16.832  1.00105.36          O
ATOM   2073  N   ALA   268     -20.093  -3.530  18.314  1.00244.22          N
ATOM   2074  CA  ALA   268     -21.142  -3.515  19.287  1.00244.22          C
ATOM   2075  CB  ALA   268     -20.768  -4.208  20.607  1.00244.22          C
ATOM   2076  C   ALA   268     -21.443  -2.092  19.605  1.00244.22          C
ATOM   2077  O   ALA   268     -20.554  -1.248  19.687  1.00244.22          O
ATOM   2078  N   GLN   269     -22.739  -1.785  19.777  1.00326.41          N
ATOM   2079  CA  GLN   269     -23.119  -0.445  20.086  1.00326.41          C
ATOM   2080  CB  GLN   269     -23.260   0.476  18.854  1.00326.41          C
ATOM   2081  CG  GLN   269     -24.414   0.131  17.903  1.00326.41          C
ATOM   2082  CD  GLN   269     -24.076  -1.118  17.097  1.00326.41          C
ATOM   2083  OE1 GLN   269     -24.123  -2.238  17.604  1.00326.41          O
ATOM   2084  NE2 GLN   269     -23.743  -0.927  15.793  1.00326.41          N
ATOM   2085  C   GLN   269     -24.458  -0.526  20.726  1.00326.41          C
ATOM   2086  O   GLN   269     -24.897  -1.593  21.153  1.00326.41          O
ATOM   2087  N   LYS   270     -25.137   0.629  20.831  1.00148.54          N
ATOM   2088  CA  LYS   270     -26.458   0.610  21.370  1.00148.54          C
ATOM   2089  CB  LYS   270     -27.143   1.995  21.411  1.00148.54          C
ATOM   2090  CG  LYS   270     -26.682   2.898  22.567  1.00148.54          C
ATOM   2091  CD  LYS   270     -27.036   2.344  23.955  1.00148.54          C
ATOM   2092  CE  LYS   270     -26.662   3.254  25.130  1.00148.54          C
ATOM   2093  NZ  LYS   270     -27.059   2.621  26.411  1.00148.54          N
ATOM   2094  C   LYS   270     -27.228  -0.308  20.479  1.00148.54          C
ATOM   2095  O   LYS   270     -26.889  -0.488  19.310  1.00148.54          O
ATOM   2096  N   ASP   271     -28.264  -0.954  21.040  1.00117.45          N
ATOM   2097  CA  ASP   271     -28.984  -1.975  20.337  1.00117.45          C
ATOM   2098  CB  ASP   271     -30.067  -2.614  21.219  1.00117.45          C
ATOM   2099  CG  ASP   271     -30.596  -3.838  20.497  1.00117.45          C
ATOM   2100  OD1 ASP   271     -29.922  -4.299  19.534  1.00117.45          O
ATOM   2101  OD2 ASP   271     -31.682  -4.329  20.899  1.00117.45          O
ATOM   2102  C   ASP   271     -29.664  -1.466  19.097  1.00117.45          C
ATOM   2103  O   ASP   271     -29.429  -1.989  18.009  1.00117.45          O
ATOM   2104  N   THR   272     -30.487  -0.404  19.194  1.00263.98          N
ATOM   2105  CA  THR   272     -31.242  -0.043  18.023  1.00263.98          C
ATOM   2106  CB  THR   272     -32.731  -0.165  18.198  1.00263.98          C
ATOM   2107  OG1 THR   272     -33.186   0.714  19.216  1.00263.98          O
ATOM   2108  CG2 THR   272     -33.064  -1.621  18.568  1.00263.98          C
ATOM   2109  C   THR   272     -30.953   1.374  17.654  1.00263.98          C
ATOM   2110  O   THR   272     -30.175   2.050  18.322  1.00263.98          O
ATOM   2111  N   VAL   273     -31.564   1.845  16.543  1.00205.23          N
ATOM   2112  CA  VAL   273     -31.322   3.178  16.075  1.00205.23          C
ATOM   2113  CB  VAL   273     -31.408   3.274  14.583  1.00205.23          C
ATOM   2114  CG1 VAL   273     -30.266   2.446  13.966  1.00205.23          C
ATOM   2115  CG2 VAL   273     -32.796   2.773  14.151  1.00205.23          C
ATOM   2116  C   VAL   273     -32.339   4.106  16.671  1.00205.23          C
ATOM   2117  O   VAL   273     -33.078   4.800  15.970  1.00205.23          O
ATOM   2118  N   ALA   274     -32.373   4.166  18.012  1.00 47.44          N
ATOM   2119  CA  ALA   274     -33.237   5.081  18.701  1.00 47.44          C
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ATOM   2120  CB  ALA   274     -33.190   4.897  20.227  1.00 47.44           C
ATOM   2121  C   ALA   274     -32.726   6.450  18.398  1.00 47.44           C
ATOM   2122  O   ALA   274     -33.480   7.406  18.217  1.00 47.44           O
ATOM   2123  N   SER   275     -31.387   6.541  18.332  1.00 75.84           N
ATOM   2124  CA  SER   275     -30.660   7.758  18.136  1.00 75.84           C
ATOM   2125  CB  SER   275     -29.142   7.519  18.089  1.00 75.84           C
ATOM   2126  OG  SER   275     -28.461   8.740  17.849  1.00 75.84           O
ATOM   2127  C   SER   275     -31.031   8.376  16.829  1.00 75.84           C
ATOM   2128  O   SER   275     -31.094   9.599  16.718  1.00 75.84           O
ATOM   2129  N   VAL   276     -31.264   7.550  15.797  1.00 32.68           N
ATOM   2130  CA  VAL   276     -31.567   8.061  14.492  1.00 32.68           C
ATOM   2131  CB  VAL   276     -31.673   6.968  13.472  1.00 32.68           C
ATOM   2132  CG1 VAL   276     -32.016   7.603  12.116  1.00 32.68           C
ATOM   2133  CG2 VAL   276     -30.359   6.169  13.471  1.00 32.68           C
ATOM   2134  C   VAL   276     -32.872   8.793  14.529  1.00 32.68           C
ATOM   2135  O   VAL   276     -33.014   9.867  13.944  1.00 32.68           O
ATOM   2136  N   MET   277     -33.859   8.217  15.240  1.00119.09           N
ATOM   2137  CA  MET   277     -35.183   8.758  15.343  1.00119.09           C
ATOM   2138  CB  MET   277     -36.118   7.834  16.142  1.00119.09           C
ATOM   2139  CG  MET   277     -36.370   6.499  15.436  1.00119.09           C
ATOM   2140  SD  MET   277     -37.257   5.258  16.425  1.00119.09           S
ATOM   2141  CE  MET   277     -35.781   4.638  17.280  1.00119.09           C
ATOM   2142  C   MET   277     -35.117  10.073  16.050  1.00119.09           C
ATOM   2143  O   MET   277     -35.877  10.990  15.754  1.00119.09           O
ATOM   2144  N   TYR   278     -34.207  10.200  17.025  1.00130.33           N
ATOM   2145  CA  TYR   278     -34.111  11.415  17.774  1.00130.33           C
ATOM   2146  CB  TYR   278     -33.019  11.310  18.852  1.00130.33           C
ATOM   2147  CG  TYR   278     -33.275  12.325  19.910  1.00130.33           C
ATOM   2148  CD1 TYR   278     -34.454  12.267  20.615  1.00130.33           C
ATOM   2149  CD2 TYR   278     -32.342  13.281  20.250  1.00130.33           C
ATOM   2150  CE1 TYR   278     -34.724  13.170  21.615  1.00130.33           C
ATOM   2151  CE2 TYR   278     -32.610  14.190  21.252  1.00130.33           C
ATOM   2152  CZ  TYR   278     -33.805  14.138  21.933  1.00130.33           C
ATOM   2153  OH  TYR   278     -34.087  15.061  22.962  1.00130.33           O
ATOM   2154  C   TYR   278     -33.748  12.474  16.783  1.00130.33           C
ATOM   2155  O   TYR   278     -34.233  13.603  16.846  1.00130.33           O
ATOM   2156  N   THR   279     -32.863  12.118  15.833  1.00 51.20           N
ATOM   2157  CA  THR   279     -32.446  13.006  14.789  1.00 51.20           C
ATOM   2158  CB  THR   279     -31.494  12.348  13.842  1.00 51.20           C
ATOM   2159  OG1 THR   279     -30.260  12.054  14.477  1.00 51.20           O
ATOM   2160  CG2 THR   279     -31.319  13.253  12.618  1.00 51.20           C
ATOM   2161  C   THR   279     -33.610  13.419  13.934  1.00 51.20           C
ATOM   2162  O   THR   279     -33.803  14.606  13.679  1.00 51.20           O
ATOM   2163  N   VAL   280     -34.424  12.443  13.486  1.00119.43           N
ATOM   2164  CA  VAL   280     -35.503  12.677  12.559  1.00119.43           C
ATOM   2165  CB  VAL   280     -36.222  11.419  12.144  1.00119.43           C
ATOM   2166  CG1 VAL   280     -35.190  10.424  11.590  1.00119.43           C
ATOM   2167  CG2 VAL   280     -37.074  10.881  13.301  1.00119.43           C
ATOM   2168  C   VAL   280     -36.524  13.573  13.185  1.00119.43           C
ATOM   2169  O   VAL   280     -37.156  14.387  12.516  1.00119.43           O
ATOM   2170  N   VAL   281     -36.726  13.414  14.498  1.00 51.13           N
ATOM   2171  CA  VAL   281     -37.689  14.173  15.234  1.00 51.13           C
ATOM   2172  CB  VAL   281     -37.736  13.781  16.684  1.00 51.13           C
ATOM   2173  CG1 VAL   281     -38.711  14.725  17.406  1.00 51.13           C
ATOM   2174  CG2 VAL   281     -38.090  12.286  16.791  1.00 51.13           C
ATOM   2175  C   VAL   281     -37.318  15.623  15.192  1.00 51.13           C
ATOM   2176  O   VAL   281     -38.195  16.481  15.129  1.00 51.13           O
ATOM   2177  N   THR   282     -36.013  15.951  15.187  1.00141.05           N
ATOM   2178  CA  THR   282     -35.643  17.337  15.300  1.00141.05           C
ATOM   2179  CB  THR   282     -34.172  17.614  15.529  1.00141.05           C
ATOM   2180  OG1 THR   282     -34.001  18.983  15.865  1.00141.05           O
ATOM   2181  CG2 THR   282     -33.303  17.257  14.316  1.00141.05           C
ATOM   2182  C   THR   282     -36.211  18.143  14.169  1.00141.05           C
ATOM   2183  O   THR   282     -36.414  19.350  14.346  1.00141.05           O
ATOM   2184  N   PRO   283     -36.481  17.599  13.017  1.00158.92           N
ATOM   2185  CA  PRO   283     -37.109  18.403  12.004  1.00158.92           C
ATOM   2186  CD  PRO   283     -35.547  16.664  12.408  1.00158.92           C
ATOM   2187  CB  PRO   283     -37.113  17.526  10.759  1.00158.92           C
ATOM   2188  CG  PRO   283     -35.795  16.745  10.893  1.00158.92           C
ATOM   2189  C   PRO   283     -38.439  18.995  12.407  1.00158.92           C
ATOM   2190  O   PRO   283     -38.916  19.902  11.727  1.00158.92           O
ATOM   2191  N   MET   284     -39.112  18.460  13.439  1.00127.87           N
ATOM   2192  CA  MET   284     -40.347  19.018  13.931  1.00127.87           C
ATOM   2193  CB  MET   284     -41.113  18.064  14.871  1.00127.87           C
ATOM   2194  CG  MET   284     -40.379  17.763  16.182  1.00127.87           C
ATOM   2195  SD  MET   284     -41.256  16.645  17.320  1.00127.87           S
ATOM   2196  CE  MET   284     -41.929  17.967  18.367  1.00127.87           C
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ATOM   2197  C   MET   284     -40.151  20.299  14.710  1.00127.87           C
ATOM   2198  O   MET   284     -41.027  21.160  14.721  1.00127.87           O
ATOM   2199  N   LEU   285     -39.012  20.424  15.419  1.00 69.67           N
ATOM   2200  CA  LEU   285     -38.725  21.434  16.414  1.00 69.67           C
ATOM   2201  CB  LEU   285     -37.419  21.124  17.151  1.00 69.67           C
ATOM   2202  CG  LEU   285     -37.429  19.727  17.794  1.00 69.67           C
ATOM   2203  CD1 LEU   285     -36.139  19.473  18.583  1.00 69.67           C
ATOM   2204  CD2 LEU   285     -38.702  19.498  18.623  1.00 69.67           C
ATOM   2205  C   LEU   285     -38.615  22.867  15.957  1.00 69.67           C
ATOM   2206  O   LEU   285     -39.117  23.757  16.643  1.00 69.67           O
ATOM   2207  N   ASN   286     -37.981  23.156  14.805  1.00 75.55           N
ATOM   2208  CA  ASN   286     -37.685  24.522  14.444  1.00 75.55           C
ATOM   2209  CB  ASN   286     -37.119  24.679  13.020  1.00 75.55           C
ATOM   2210  CG  ASN   286     -35.738  24.058  12.910  1.00 75.55           C
ATOM   2211  OD1 ASN   286     -35.202  23.516  13.876  1.00 75.55           O
ATOM   2212  ND2 ASN   286     -35.146  24.155  11.688  1.00 75.55           N
ATOM   2213  C   ASN   286     -38.918  25.378  14.440  1.00 75.55           C
ATOM   2214  O   ASN   286     -38.862  26.510  14.910  1.00 75.55           O
ATOM   2215  N   PRO   287     -40.026  24.918  13.928  1.00 78.60           N
ATOM   2216  CA  PRO   287     -41.183  25.766  13.887  1.00 78.60           C
ATOM   2217  CD  PRO   287     -40.050  23.903  12.887  1.00 78.60           C
ATOM   2218  CB  PRO   287     -42.231  24.981  13.098  1.00 78.60           C
ATOM   2219  CG  PRO   287     -41.385  24.111  12.146  1.00 78.60           C
ATOM   2220  C   PRO   287     -41.614  26.205  15.253  1.00 78.60           C
ATOM   2221  O   PRO   287     -42.094  27.330  15.387  1.00 78.60           O
ATOM   2222  N   PHE   288     -41.471  25.341  16.275  1.00 92.79           N
ATOM   2223  CA  PHE   288     -41.864  25.718  17.604  1.00 92.79           C
ATOM   2224  CB  PHE   288     -41.812  24.576  18.631  1.00 92.79           C
ATOM   2225  CG  PHE   288     -42.779  23.527  18.214  1.00 92.79           C
ATOM   2226  CD1 PHE   288     -44.129  23.686  18.432  1.00 92.79           C
ATOM   2227  CD2 PHE   288     -42.335  22.388  17.581  1.00 92.79           C
ATOM   2228  CE1 PHE   288     -45.024  22.719  18.043  1.00 92.79           C
ATOM   2229  CE2 PHE   288     -43.224  21.418  17.193  1.00 92.79           C
ATOM   2230  CZ  PHE   288     -44.570  21.578  17.426  1.00 92.79           C
ATOM   2231  C   PHE   288     -40.925  26.768  18.099  1.00 92.79           C
ATOM   2232  O   PHE   288     -41.334  27.723  18.759  1.00 92.79           O
ATOM   2233  N   ILE   289     -39.629  26.603  17.782  1.00 49.33           N
ATOM   2234  CA  ILE   289     -38.583  27.470  18.241  1.00 49.33           C
ATOM   2235  CB  ILE   289     -37.226  27.034  17.763  1.00 49.33           C
ATOM   2236  CG2 ILE   289     -36.201  28.093  18.201  1.00 49.33           C
ATOM   2237  CG1 ILE   289     -36.903  25.620  18.283  1.00 49.33           C
ATOM   2238  CD1 ILE   289     -35.631  25.020  17.680  1.00 49.33           C
ATOM   2239  C   ILE   289     -38.842  28.856  17.733  1.00 49.33           C
ATOM   2240  O   ILE   289     -38.586  29.839  18.425  1.00 49.33           O
ATOM   2241  N   TYR   290     -39.365  28.966  16.503  1.00 73.89           N
ATOM   2242  CA  TYR   290     -39.635  30.233  15.887  1.00 73.89           C
ATOM   2243  CB  TYR   290     -40.235  30.115  14.480  1.00 73.89           C
ATOM   2244  CG  TYR   290     -39.174  29.512  13.636  1.00 73.89           C
ATOM   2245  CD1 TYR   290     -37.948  30.126  13.507  1.00 73.89           C
ATOM   2246  CD2 TYR   290     -39.425  28.353  12.946  1.00 73.89           C
ATOM   2247  CE1 TYR   290     -36.971  29.561  12.725  1.00 73.89           C
ATOM   2248  CE2 TYR   290     -38.452  27.786  12.163  1.00 73.89           C
ATOM   2249  CZ  TYR   290     -37.220  28.386  12.057  1.00 73.89           C
ATOM   2250  OH  TYR   290     -36.214  27.803  11.256  1.00 73.89           O
ATOM   2251  C   TYR   290     -40.624  30.978  16.723  1.00 73.89           C
ATOM   2252  O   TYR   290     -40.635  32.209  16.734  1.00 73.89           O
ATOM   2253  N   SER   291     -41.505  30.246  17.425  1.00 40.54           N
ATOM   2254  CA  SER   291     -42.515  30.869  18.227  1.00 40.54           C
ATOM   2255  CB  SER   291     -43.288  29.870  19.112  1.00 40.54           C
ATOM   2256  OG  SER   291     -44.023  28.946  18.320  1.00 40.54           O
ATOM   2257  C   SER   291     -41.833  31.810  19.167  1.00 40.54           C
ATOM   2258  O   SER   291     -42.426  32.799  19.600  1.00 40.54           O
ATOM   2259  N   LEU   292     -40.552  31.549  19.484  1.00 49.80           N
ATOM   2260  CA  LEU   292     -39.849  32.385  20.410  1.00 49.80           C
ATOM   2261  CB  LEU   292     -38.397  31.938  20.645  1.00 49.80           C
ATOM   2262  CG  LEU   292     -38.323  30.563  21.332  1.00 49.80           C
ATOM   2263  CD1 LEU   292     -36.877  30.183  21.694  1.00 49.80           C
ATOM   2264  CD2 LEU   292     -39.287  30.497  22.527  1.00 49.80           C
ATOM   2265  C   LEU   292     -39.829  33.779  19.881  1.00 49.80           C
ATOM   2266  O   LEU   292     -40.064  34.722  20.635  1.00 49.80           O
ATOM   2267  N   ARG   293     -39.558  33.983  18.578  1.00194.51           N
ATOM   2268  CA  ARG   293     -39.614  35.352  18.167  1.00194.51           C
ATOM   2269  CB  ARG   293     -38.775  35.676  16.918  1.00194.51           C
ATOM   2270  CG  ARG   293     -39.161  34.892  15.667  1.00194.51           C
ATOM   2271  CD  ARG   293     -38.086  34.910  14.586  1.00194.51           C
ATOM   2272  NE  ARG   293     -37.156  33.784  14.871  1.00194.51           N
ATOM   2273  CZ  ARG   293     -36.508  33.184  13.831  1.00194.51           C
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ATOM   2274  NH1 ARG   293     -36.740  33.607  12.556  1.00194.51           N
ATOM   2275  NH2 ARG   293     -35.640  32.158  14.065  1.00194.51           N
ATOM   2276  C   ARG   293     -41.055  35.607  17.921  1.00194.51           C
ATOM   2277  O   ARG   293     -41.582  35.426  16.825  1.00194.51           O
ATOM   2278  N   ASN   294     -41.734  36.025  18.999  1.00 40.31           N
ATOM   2279  CA  ASN   294     -43.145  36.219  18.973  1.00 40.31           C
ATOM   2280  CB  ASN   294     -43.712  36.577  20.356  1.00 40.31           C
ATOM   2281  CG  ASN   294     -43.561  35.354  21.250  1.00 40.31           C
ATOM   2282  OD1 ASN   294     -42.453  34.873  21.479  1.00 40.31           O
ATOM   2283  ND2 ASN   294     -44.705  34.832  21.768  1.00 40.31           N
ATOM   2284  C   ASN   294     -43.478  37.339  18.055  1.00 40.31           C
ATOM   2285  O   ASN   294     -44.427  37.252  17.281  1.00 40.31           O
ATOM   2286  N   GLN   295     -42.708  38.436  18.102  1.00119.24           N
ATOM   2287  CA  GLN   295     -43.179  39.525  17.314  1.00119.24           C
ATOM   2288  CB  GLN   295     -42.390  40.824  17.540  1.00119.24           C
ATOM   2289  CG  GLN   295     -40.922  40.750  17.128  1.00119.24           C
ATOM   2290  CD  GLN   295     -40.313  42.117  17.402  1.00119.24           C
ATOM   2291  OE1 GLN   295     -40.678  43.110  16.774  1.00119.24           O
ATOM   2292  NE2 GLN   295     -39.362  42.173  18.372  1.00119.24           N
ATOM   2293  C   GLN   295     -43.171  39.204  15.850  1.00119.24           C
ATOM   2294  O   GLN   295     -44.210  39.287  15.201  1.00119.24           O
ATOM   2295  N   GLU   296     -42.026  38.799  15.274  1.00 70.63           N
ATOM   2296  CA  GLU   296     -42.118  38.588  13.859  1.00 70.63           C
ATOM   2297  CB  GLU   296     -40.753  38.565  13.160  1.00 70.63           C
ATOM   2298  CG  GLU   296     -40.106  39.949  13.095  1.00 70.63           C
ATOM   2299  CD  GLU   296     -38.767  39.809  12.384  1.00 70.63           C
ATOM   2300  OE1 GLU   296     -37.758  39.547  13.084  1.00 70.63           O
ATOM   2301  OE2 GLU   296     -38.743  39.958  11.132  1.00 70.63           O
ATOM   2302  C   GLU   296     -42.837  37.321  13.492  1.00 70.63           C
ATOM   2303  O   GLU   296     -43.873  37.356  12.832  1.00 70.63           O
ATOM   2304  N   ILE   297     -42.312  36.162  13.943  1.00 58.90           N
ATOM   2305  CA  ILE   297     -42.870  34.899  13.547  1.00 58.90           C
ATOM   2306  CB  ILE   297     -41.986  33.720  13.859  1.00 58.90           C
ATOM   2307  CG2 ILE   297     -42.785  32.423  13.648  1.00 58.90           C
ATOM   2308  CG1 ILE   297     -40.723  33.795  12.985  1.00 58.90           C
ATOM   2309  CD1 ILE   297     -39.664  32.759  13.341  1.00 58.90           C
ATOM   2310  C   ILE   297     -44.208  34.678  14.163  1.00 58.90           C
ATOM   2311  O   ILE   297     -45.149  34.309  13.464  1.00 58.90           O
ATOM   2312  N   LYS   298     -44.354  34.923  15.480  1.00121.87           N
ATOM   2313  CA  LYS   298     -45.633  34.648  16.068  1.00121.87           C
ATOM   2314  CB  LYS   298     -45.724  34.874  17.587  1.00121.87           C
ATOM   2315  CG  LYS   298     -45.420  33.640  18.429  1.00121.87           C
ATOM   2316  CD  LYS   298     -46.492  32.556  18.281  1.00121.87           C
ATOM   2317  CE  LYS   298     -46.412  31.472  19.354  1.00121.87           C
ATOM   2318  NZ  LYS   298     -47.669  30.692  19.368  1.00121.87           N
ATOM   2319  C   LYS   298     -46.659  35.504  15.418  1.00121.87           C
ATOM   2320  O   LYS   298     -47.764  35.040  15.151  1.00121.87           O
ATOM   2321  N   SER   299     -46.332  36.774  15.134  1.00 31.49           N
ATOM   2322  CA  SER   299     -47.330  37.600  14.530  1.00 31.49           C
ATOM   2323  CB  SER   299     -46.874  39.053  14.318  1.00 31.49           C
ATOM   2324  OG  SER   299     -46.734  39.705  15.571  1.00 31.49           O
ATOM   2325  C   SER   299     -47.690  37.024  13.195  1.00 31.49           C
ATOM   2326  O   SER   299     -48.866  36.977  12.839  1.00 31.49           O
ATOM   2327  N   SER   300     -46.686  36.559  12.426  1.00 74.61           N
ATOM   2328  CA  SER   300     -46.945  36.043  11.110  1.00 74.61           C
ATOM   2329  CB  SER   300     -45.657  35.671  10.352  1.00 74.61           C
ATOM   2330  OG  SER   300     -45.972  35.170   9.062  1.00 74.61           O
ATOM   2331  C   SER   300     -47.793  34.811  11.208  1.00 74.61           C
ATOM   2332  O   SER   300     -48.805  34.685  10.519  1.00 74.61           O
ATOM   2333  N   LEU   301     -47.399  33.871  12.091  1.00 91.19           N
ATOM   2334  CA  LEU   301     -48.084  32.623  12.281  1.00 91.19           C
ATOM   2335  CB  LEU   301     -47.349  31.725  13.290  1.00 91.19           C
ATOM   2336  CG  LEU   301     -46.097  31.035  12.709  1.00 91.19           C
ATOM   2337  CD1 LEU   301     -45.182  32.022  11.963  1.00 91.19           C
ATOM   2338  CD2 LEU   301     -45.347  30.265  13.812  1.00 91.19           C
ATOM   2339  C   LEU   301     -49.463  32.885  12.791  1.00 91.19           C
ATOM   2340  O   LEU   301     -50.417  32.242  12.358  1.00 91.19           O
ATOM   2341  N   ARG   302     -49.609  33.854  13.713  1.00144.20           N
ATOM   2342  CA  ARG   302     -50.878  34.161  14.308  1.00144.20           C
ATOM   2343  CB  ARG   302     -50.781  35.293  15.349  1.00144.20           C
ATOM   2344  CG  ARG   302     -52.057  35.496  16.168  1.00144.20           C
ATOM   2345  CD  ARG   302     -51.905  36.531  17.286  1.00144.20           C
ATOM   2346  NE  ARG   302     -53.214  36.630  17.993  1.00144.20           N
ATOM   2347  CZ  ARG   302     -53.259  36.683  19.357  1.00144.20           C
ATOM   2348  NH1 ARG   302     -52.109  36.572  20.087  1.00144.20           N
ATOM   2349  NH2 ARG   302     -54.453  36.853  19.993  1.00144.20           N
ATOM   2350  C   ARG   302     -51.796  34.601  13.218  1.00144.20           C
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ATOM   2351  O   ARG   302     -52.988  34.301  13.243  1.00144.20           O
ATOM   2352  N   LYS   303     -51.269  35.351  12.234  1.00 65.80           N
ATOM   2353  CA  LYS   303     -52.086  35.796  11.142  1.00 65.80           C
ATOM   2354  CB  LYS   303     -51.303  36.625  10.107  1.00 65.80           C
ATOM   2355  CG  LYS   303     -50.661  37.902  10.651  1.00 65.80           C
ATOM   2356  CD  LYS   303     -49.639  38.520   9.692  1.00 65.80           C
ATOM   2357  CE  LYS   303     -48.961  39.778  10.238  1.00 65.80           C
ATOM   2358  NZ  LYS   303     -47.962  40.278   9.266  1.00 65.80           N
ATOM   2359  C   LYS   303     -52.565  34.589  10.395  1.00 65.80           C
ATOM   2360  O   LYS   303     -53.754  34.451  10.110  1.00 65.80           O
ATOM   2361  N   LEU   304     -51.631  33.664  10.085  1.00 43.68           N
ATOM   2362  CA  LEU   304     -51.941  32.508   9.292  1.00 43.68           C
ATOM   2363  CB  LEU   304     -50.718  31.618   9.006  1.00 43.68           C
ATOM   2364  CG  LEU   304     -49.652  32.284   8.115  1.00 43.68           C
ATOM   2365  CD1 LEU   304     -48.466  31.337   7.867  1.00 43.68           C
ATOM   2366  CD2 LEU   304     -50.265  32.834   6.816  1.00 43.68           C
ATOM   2367  C   LEU   304     -52.929  31.668  10.028  1.00 43.68           C
ATOM   2368  O   LEU   304     -53.877  31.162   9.434  1.00 43.68           O
ATOM   2369  N   ILE   305     -52.711  31.481  11.342  1.00 89.30           N
ATOM   2370  CA  ILE   305     -53.587  30.691  12.157  1.00 89.30           C
ATOM   2371  CB  ILE   305     -53.042  30.433  13.530  1.00 89.30           C
ATOM   2372  CG2 ILE   305     -54.186  29.871  14.385  1.00 89.30           C
ATOM   2373  CG1 ILE   305     -51.834  29.487  13.450  1.00 89.30           C
ATOM   2374  CD1 ILE   305     -52.204  28.109  12.899  1.00 89.30           C
ATOM   2375  C   ILE   305     -54.918  31.360  12.308  1.00 89.30           C
ATOM   2376  O   ILE   305     -55.956  30.713  12.182  1.00 89.30           O
ATOM   2377  N   TRP   306     -54.924  32.683  12.562  1.00 86.96           N
ATOM   2378  CA  TRP   306     -56.140  33.415  12.786  1.00 86.96           C
ATOM   2379  CB  TRP   306     -57.031  33.588  11.544  1.00 86.96           C
ATOM   2380  CG  TRP   306     -56.630  34.727  10.639  1.00 86.96           C
ATOM   2381  CD2 TRP   306     -56.765  34.715   9.210  1.00 86.96           C
ATOM   2382  CD1 TRP   306     -56.100  35.938  10.969  1.00 86.96           C
ATOM   2383  NE1 TRP   306     -55.899  36.688   9.834  1.00 86.96           N
ATOM   2384  CE2 TRP   306     -56.304  35.945   8.746  1.00 86.96           C
ATOM   2385  CE3 TRP   306     -57.231  33.758   8.357  1.00 86.96           C
ATOM   2386  CZ2 TRP   306     -56.301  36.238   7.412  1.00 86.96           C
ATOM   2387  CZ3 TRP   306     -57.232  34.057   7.012  1.00 86.96           C
ATOM   2388  CH2 TRP   306     -56.776  35.272   6.551  1.00 86.96           C
ATOM   2389  C   TRP   306     -56.967  32.794  13.860  1.00 86.96           C
ATOM   2390  O   TRP   306     -58.167  32.593  13.678  1.00 86.96           O
ATOM   2391  N   VAL   307     -56.368  32.470  15.021  1.00131.49           N
ATOM   2392  CA  VAL   307     -57.216  31.976  16.066  1.00131.49           C
ATOM   2393  CB  VAL   307     -56.499  31.350  17.229  1.00131.49           C
ATOM   2394  CG1 VAL   307     -55.894  30.009  16.782  1.00131.49           C
ATOM   2395  CG2 VAL   307     -55.457  32.352  17.748  1.00131.49           C
ATOM   2396  C   VAL   307     -58.018  33.133  16.572  1.00131.49           C
ATOM   2397  O   VAL   307     -57.529  34.262  16.623  1.00131.49           O
ATOM   2398  N   ARG   308     -59.291  32.867  16.939  1.00233.27           N
ATOM   2399  CA  ARG   308     -60.205  33.880  17.391  1.00233.27           C
ATOM   2400  CB  ARG   308     -61.407  34.095  16.453  1.00233.27           C
ATOM   2401  CG  ARG   308     -61.071  34.557  15.036  1.00233.27           C
ATOM   2402  CD  ARG   308     -62.302  34.539  14.126  1.00233.27           C
ATOM   2403  NE  ARG   308     -61.895  34.991  12.767  1.00233.27           N
ATOM   2404  CZ  ARG   308     -62.366  34.324  11.675  1.00233.27           C
ATOM   2405  NH1 ARG   308     -63.181  33.237  11.840  1.00233.27           N
ATOM   2406  NH2 ARG   308     -62.019  34.731  10.421  1.00233.27           N
ATOM   2407  C   ARG   308     -60.815  33.393  18.666  1.00233.27           C
ATOM   2408  O   ARG   308     -60.405  32.372  19.215  1.00233.27           O
ATOM   2409  N   LYS   309     -61.807  34.151  19.182  1.00249.86           N
ATOM   2410  CA  LYS   309     -62.517  33.779  20.370  1.00249.86           C
ATOM   2411  CB  LYS   309     -62.681  34.935  21.379  1.00249.86           C
ATOM   2412  CG  LYS   309     -63.440  34.546  22.651  1.00249.86           C
ATOM   2413  CD  LYS   309     -63.241  35.515  23.819  1.00249.86           C
ATOM   2414  CE  LYS   309     -61.991  35.218  24.652  1.00249.86           C
ATOM   2415  NZ  LYS   309     -60.773  35.513  23.864  1.00249.86           N
ATOM   2416  C   LYS   309     -63.873  33.297  19.947  1.00249.86           C
ATOM   2417  O   LYS   309     -64.305  33.545  18.822  1.00249.86           O
ATOM   2418  N   ILE   310     -64.573  32.574  20.848  1.00145.08           N
ATOM   2419  CA  ILE   310     -65.856  31.973  20.581  1.00145.08           C
ATOM   2420  CB  ILE   310     -66.364  31.125  21.715  1.00145.08           C
ATOM   2421  CG2 ILE   310     -66.550  32.043  22.931  1.00145.08           C
ATOM   2422  CG1 ILE   310     -67.638  30.362  21.313  1.00145.08           C
ATOM   2423  CD1 ILE   310     -68.102  29.345  22.359  1.00145.08           C
ATOM   2424  C   ILE   310     -66.884  33.029  20.332  1.00145.08           C
ATOM   2425  O   ILE   310     -66.873  34.088  20.958  1.00145.08           O
ATOM   2426  N   HIS   311     -67.797  32.759  19.371  1.00256.42           N
ATOM   2427  CA  HIS   311     -68.842  33.684  19.034  1.00256.42           C
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ATOM   2428  ND1 HIS   311     -69.075  36.368  17.068  1.00256.42           N
ATOM   2429  CG  HIS   311     -69.696  35.138  17.109  1.00256.42           C
ATOM   2430  CB  HIS   311     -68.985  33.879  17.512  1.00256.42           C
ATOM   2431  NE2 HIS   311     -71.168  36.693  16.392  1.00256.42           N
ATOM   2432  CD2 HIS   311     -70.971  35.354  16.693  1.00256.42           C
ATOM   2433  CE1 HIS   311     -69.999  37.259  16.635  1.00256.42           C
ATOM   2434  C   HIS   311     -70.119  33.082  19.545  1.00256.42           C
ATOM   2435  O   HIS   311     -70.309  31.868  19.478  1.00256.42           O
ATOM   2436  N   SER   312     -71.021  33.921  20.096  1.00153.99           N
ATOM   2437  CA  SER   312     -72.248  33.426  20.657  1.00153.99           C
ATOM   2438  CB  SER   312     -72.978  34.451  21.546  1.00153.99           C
ATOM   2439  OG  SER   312     -74.200  33.906  22.025  1.00153.99           O
ATOM   2440  C   SER   312     -73.190  33.053  19.562  1.00153.99           C
ATOM   2441  O   SER   312     -73.318  33.743  18.549  1.00153.99           O
ATOM   2442  N   PRO   313     -73.842  31.943  19.765  1.00136.72           N
ATOM   2443  CA  PRO   313     -74.826  31.530  18.801  1.00136.72           C
ATOM   2444  CD  PRO   313     -73.076  30.804  20.251  1.00136.72           C
ATOM   2445  CB  PRO   313     -74.847  30.005  18.816  1.00136.72           C
ATOM   2446  CG  PRO   313     -73.456  29.624  19.347  1.00136.72           C
ATOM   2447  C   PRO   313     -76.142  32.124  19.183  1.00136.72           C
ATOM   2448  O   PRO   313     -77.160  31.785  18.522  1.00136.72           O
ATOM   2449  OXT PRO   313     -76.169  32.932  20.150  1.00136.72           O
TER    2450       PRO   313
END
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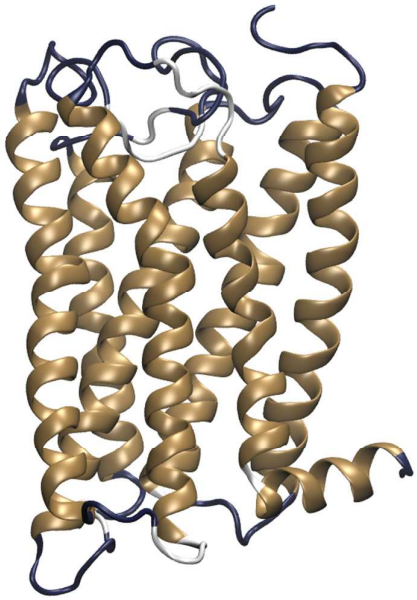
PDB and structure of OR1G1 built by homology modeling using PDB ids 1U19, 2LNL and 2RH1 as templates.



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ATOM      1  N   MET     1     -30.124  -4.703   1.154  1.00 96.76           N
ATOM      2  CA  MET     1     -30.545  -5.403   2.390  1.00 96.76           C
ATOM      3  CB  MET     1     -29.562  -6.538   2.723  1.00 96.76           C
ATOM      4  CG  MET     1     -29.395  -7.614   1.654  1.00 96.76           C
ATOM      5  SD  MET     1     -28.381  -9.025   2.193  1.00 96.76           S
ATOM      6  CE  MET     1     -26.871  -8.046   2.434  1.00 96.76           C
ATOM      7  C   MET     1     -30.400  -4.464   3.534  1.00 96.76           C
ATOM      8  O   MET     1     -29.573  -3.561   3.486  1.00 96.76           O
ATOM      9  N   GLU     2     -31.248  -4.616   4.564  1.00158.04           N
ATOM     10  CA  GLU     2     -31.052  -3.869   5.767  1.00158.04           C
ATOM     11  CB  GLU     2     -32.282  -3.235   6.435  1.00158.04           C
ATOM     12  CG  GLU     2     -32.512  -1.776   6.052  1.00158.04           C
ATOM     13  CD  GLU     2     -32.362  -1.646   4.556  1.00158.04           C
ATOM     14  OE1 GLU     2     -31.214  -1.725   4.049  1.00158.04           O
ATOM     15  OE2 GLU     2     -33.407  -1.459   3.892  1.00158.04           O
ATOM     16  C   GLU     2     -30.467  -4.826   6.732  1.00158.04           C
ATOM     17  O   GLU     2     -30.361  -6.020   6.460  1.00158.04           O
ATOM     18  N   GLY     3     -30.032  -4.325   7.892  1.00127.91           N
ATOM     19  CA  GLY     3     -29.430  -5.266   8.769  1.00127.91           C
ATOM     20  C   GLY     3     -30.453  -5.759   9.729  1.00127.91           C
ATOM     21  O   GLY     3     -30.950  -5.016  10.573  1.00127.91           O
ATOM     22  N   LYS     4     -30.808  -7.047   9.584  1.00246.79           N
ATOM     23  CA  LYS     4     -31.667  -7.723  10.504  1.00246.79           C
ATOM     24  CB  LYS     4     -33.163  -7.441  10.313  1.00246.79           C
ATOM     25  CG  LYS     4     -33.999  -7.925  11.498  1.00246.79           C
ATOM     26  CD  LYS     4     -33.771  -7.098  12.768  1.00246.79           C
ATOM     27  CE  LYS     4     -32.354  -7.205  13.333  1.00246.79           C
ATOM     28  NZ  LYS     4     -32.189  -6.258  14.457  1.00246.79           N
ATOM     29  C   LYS     4     -31.452  -9.166  10.198  1.00246.79           C
ATOM     30  O   LYS     4     -31.848  -9.634   9.134  1.00246.79           O
ATOM     31  N   ASN     5     -30.784  -9.899  11.107  1.00 98.78           N
ATOM     32  CA  ASN     5     -30.450 -11.276  10.876  1.00 98.78           C
ATOM     33  CB  ASN     5     -29.410 -11.802  11.886  1.00 98.78           C
ATOM     34  CG  ASN     5     -30.033 -11.776  13.276  1.00 98.78           C
ATOM     35  OD1 ASN     5     -30.770 -10.854  13.618  1.00 98.78           O
ATOM     36  ND2 ASN     5     -29.754 -12.828  14.090  1.00 98.78           N
ATOM     37  C   ASN     5     -31.638 -12.192  10.935  1.00 98.78           C
ATOM     38  O   ASN     5     -31.815 -13.043  10.064  1.00 98.78           O
ATOM     39  N   LEU     6     -32.505 -12.023  11.952  1.00165.07           N
ATOM     40  CA  LEU     6     -33.510 -13.011  12.212  1.00165.07           C
ATOM     41  CB  LEU     6     -34.329 -12.680  13.478  1.00165.07           C
ATOM     42  CG  LEU     6     -35.386 -13.730  13.890  1.00165.07           C
ATOM     43  CD1 LEU     6     -36.602 -13.755  12.949  1.00165.07           C
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ATOM     44  CD2 LEU     6     -34.744 -15.116  14.062  1.00165.07           C
ATOM     45  C   LEU     6     -34.439 -13.149  11.057  1.00165.07           C
ATOM     46  O   LEU     6     -34.660 -14.259  10.575  1.00165.07           O
ATOM     47  N   THR     7     -34.994 -12.035  10.553  1.00263.78           N
ATOM     48  CA  THR     7     -35.934 -12.211   9.487  1.00263.78           C
ATOM     49  CB  THR     7     -37.316 -11.727   9.802  1.00263.78           C
ATOM     50  OG1 THR     7     -38.219 -12.124   8.779  1.00263.78           O
ATOM     51  CG2 THR     7     -37.276 -10.196   9.905  1.00263.78           C
ATOM     52  C   THR     7     -35.467 -11.436   8.310  1.00263.78           C
ATOM     53  O   THR     7     -34.930 -10.337   8.431  1.00263.78           O
ATOM     54  N   SER     8     -35.651 -12.035   7.124  1.00151.65           N
ATOM     55  CA  SER     8     -35.246 -11.441   5.891  1.00151.65           C
ATOM     56  CB  SER     8     -35.185 -12.453   4.734  1.00151.65           C
ATOM     57  OG  SER     8     -34.154 -13.403   4.965  1.00151.65           O
ATOM     58  C   SER     8     -36.187 -10.354   5.462  1.00151.65           C
ATOM     59  O   SER     8     -35.785  -9.497   4.678  1.00151.65           O
ATOM     60  N   ILE     9     -37.450 -10.308   5.945  1.00386.20           N
ATOM     61  CA  ILE     9     -38.280  -9.387   5.216  1.00386.20           C
ATOM     62  CB  ILE     9     -39.207 -10.077   4.257  1.00386.20           C
ATOM     63  CG2 ILE     9     -38.343 -10.846   3.244  1.00386.20           C
ATOM     64  CG1 ILE     9     -40.218 -10.968   5.003  1.00386.20           C
ATOM     65  CD1 ILE     9     -39.589 -12.143   5.751  1.00386.20           C
ATOM     66  C   ILE     9     -39.151  -8.460   6.013  1.00386.20           C
ATOM     67  O   ILE     9     -39.474  -8.682   7.181  1.00386.20           O
ATOM     68  N   SER    10     -39.490  -7.341   5.322  1.00228.29           N
ATOM     69  CA  SER    10     -40.446  -6.318   5.641  1.00228.29           C
ATOM     70  CB  SER    10     -39.902  -5.215   6.556  1.00228.29           C
ATOM     71  OG  SER    10     -39.824  -5.725   7.878  1.00228.29           O
ATOM     72  C   SER    10     -40.901  -5.702   4.347  1.00228.29           C
ATOM     73  O   SER    10     -41.132  -4.495   4.258  1.00228.29           O
ATOM     74  N   GLU    11     -41.035  -6.538   3.297  1.00133.40           N
ATOM     75  CA  GLU    11     -41.577  -6.087   2.047  1.00133.40           C
ATOM     76  CB  GLU    11     -41.574  -7.196   0.968  1.00133.40           C
ATOM     77  CG  GLU    11     -42.322  -8.486   1.313  1.00133.40           C
ATOM     78  CD  GLU    11     -42.183  -9.410   0.112  1.00133.40           C
ATOM     79  OE1 GLU    11     -41.541  -8.983  -0.886  1.00133.40           O
ATOM     80  OE2 GLU    11     -42.715 -10.551   0.171  1.00133.40           O
ATOM     81  C   GLU    11     -42.994  -5.775   2.347  1.00133.40           C
ATOM     82  O   GLU    11     -43.539  -4.743   1.960  1.00133.40           O
ATOM     83  N   CYS    12     -43.602  -6.713   3.085  1.00 66.29           N
ATOM     84  CA  CYS    12     -44.937  -6.661   3.568  1.00 66.29           C
ATOM     85  CB  CYS    12     -45.918  -7.555   2.792  1.00 66.29           C
ATOM     86  SG  CYS    12     -46.161  -6.988   1.082  1.00 66.29           S
ATOM     87  C   CYS    12     -44.796  -7.235   4.928  1.00 66.29           C
ATOM     88  O   CYS    12     -43.674  -7.464   5.376  1.00 66.29           O
ATOM     89  N   PHE    13     -45.925  -7.462   5.620  1.00116.63           N
ATOM     90  CA  PHE    13     -45.889  -8.021   6.937  1.00116.63           C
ATOM     91  CB  PHE    13     -44.876  -9.169   7.137  1.00116.63           C
ATOM     92  CG  PHE    13     -45.243 -10.301   6.240  1.00116.63           C
ATOM     93  CD1 PHE    13     -44.861 -10.291   4.918  1.00116.63           C
ATOM     94  CD2 PHE    13     -45.955 -11.376   6.718  1.00116.63           C
ATOM     95  CE1 PHE    13     -45.191 -11.332   4.084  1.00116.63           C
ATOM     96  CE2 PHE    13     -46.288 -12.420   5.888  1.00116.63           C
ATOM     97  CZ  PHE    13     -45.906 -12.400   4.568  1.00116.63           C
ATOM     98  C   PHE    13     -45.531  -6.919   7.874  1.00116.63           C
ATOM     99  O   PHE    13     -44.841  -5.968   7.510  1.00116.63           O
ATOM    100  N   LEU    14     -45.997  -7.032   9.126  1.00241.40           N
ATOM    101  CA  LEU    14     -45.754  -6.012  10.095  1.00241.40           C
ATOM    102  CB  LEU    14     -46.613  -6.183  11.358  1.00241.40           C
ATOM    103  CG  LEU    14     -48.132  -6.138  11.093  1.00241.40           C
ATOM    104  CD1 LEU    14     -48.565  -4.773  10.536  1.00241.40           C
ATOM    105  CD2 LEU    14     -48.590  -7.318  10.220  1.00241.40           C
ATOM    106  C   LEU    14     -44.322  -6.108  10.503  1.00241.40           C
ATOM    107  O   LEU    14     -43.711  -7.173  10.429  1.00241.40           O
ATOM    108  N   LEU    15     -43.742  -4.970  10.932  1.00234.14           N
ATOM    109  CA  LEU    15     -42.379  -4.965  11.358  1.00234.14           C
ATOM    110  CB  LEU    15     -41.894  -3.577  11.807  1.00234.14           C
ATOM    111  CG  LEU    15     -40.425  -3.558  12.274  1.00234.14           C
ATOM    112  CD1 LEU    15     -39.463  -3.913  11.125  1.00234.14           C
ATOM    113  CD2 LEU    15     -40.075  -2.226  12.955  1.00234.14           C
ATOM    114  C   LEU    15     -42.316  -5.864  12.532  1.00234.14           C
ATOM    115  O   LEU    15     -41.418  -6.693  12.595  1.00234.14           O
ATOM    116  N   GLY    16     -43.272  -5.726  13.477  1.00118.55           N
ATOM    117  CA  GLY    16     -43.389  -6.584  14.622  1.00118.55           C
ATOM    118  C   GLY    16     -42.054  -6.683  15.253  1.00118.55           C
ATOM    119  O   GLY    16     -41.660  -5.807  16.014  1.00118.55           O
ATOM    120  N   PHE    17     -41.332  -7.776  14.941  1.00306.51           N
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ATOM	121	CA	PHE	17	-39.993	-7.962	15.396	1.00306.51	C
ATOM	122	CB	PHE	17	-39.242	-9.091	14.665	1.00306.51	C
ATOM	123	CG	PHE	17	-39.282	-8.788	13.206	1.00306.51	C
ATOM	124	CD1	PHE	17	-38.354	-7.963	12.613	1.00306.51	C
ATOM	125	CD2	PHE	17	-40.273	-9.330	12.427	1.00306.51	C
ATOM	126	CE1	PHE	17	-38.406	-7.687	11.268	1.00306.51	C
ATOM	127	CE2	PHE	17	-40.328	-9.057	11.082	1.00306.51	C
ATOM	128	CZ	PHE	17	-39.397	-8.237	10.495	1.00306.51	C
ATOM	129	C	PHE	17	-39.249	-6.699	15.117	1.00306.51	C
ATOM	130	O	PHE	17	-39.586	-5.951	14.200	1.00306.51	O
ATOM	131	N	SER	18	-38.211	-6.470	15.938	1.00253.69	N
ATOM	132	CA	SER	18	-37.323	-5.343	15.973	1.00253.69	C
ATOM	133	CB	SER	18	-36.832	-4.873	14.590	1.00253.69	C
ATOM	134	OG	SER	18	-37.827	-4.097	13.940	1.00253.69	O
ATOM	135	C	SER	18	-37.946	-4.162	16.643	1.00253.69	C
ATOM	136	O	SER	18	-37.292	-3.132	16.786	1.00253.69	O
ATOM	137	N	GLU	19	-39.198	-4.281	17.124	1.00126.08	N
ATOM	138	CA	GLU	19	-39.789	-3.164	17.800	1.00126.08	C
ATOM	139	CB	GLU	19	-40.325	-2.071	16.857	1.00126.08	C
ATOM	140	CG	GLU	19	-39.237	-1.335	16.077	1.00126.08	C
ATOM	141	CD	GLU	19	-39.913	-0.295	15.196	1.00126.08	C
ATOM	142	OE1	GLU	19	-41.159	-0.142	15.301	1.00126.08	O
ATOM	143	OE2	GLU	19	-39.186	0.362	14.402	1.00126.08	O
ATOM	144	C	GLU	19	-40.974	-3.659	18.554	1.00126.08	C
ATOM	145	O	GLU	19	-41.497	-4.735	18.284	1.00126.08	O
ATOM	146	N	GLN	20	-41.436	-2.889	19.550	1.00315.11	N
ATOM	147	CA	GLN	20	-42.623	-3.332	20.209	1.00315.11	C
ATOM	148	CB	GLN	20	-42.810	-2.766	21.624	1.00315.11	C
ATOM	149	CG	GLN	20	-41.826	-3.360	22.631	1.00315.11	C
ATOM	150	CD	GLN	20	-42.241	-4.805	22.878	1.00315.11	C
ATOM	151	OE1	GLN	20	-43.271	-5.263	22.384	1.00315.11	O
ATOM	152	NE2	GLN	20	-41.424	-5.546	23.672	1.00315.11	N
ATOM	153	C	GLN	20	-43.762	-2.880	19.366	1.00315.11	C
ATOM	154	O	GLN	20	-43.695	-1.843	18.710	1.00315.11	O
ATOM	155	N	LEU	21	-44.846	-3.668	19.337	1.00365.93	N
ATOM	156	CA	LEU	21	-45.942	-3.243	18.533	1.00365.93	C
ATOM	157	CB	LEU	21	-47.013	-4.327	18.290	1.00365.93	C
ATOM	158	CG	LEU	21	-47.536	-5.047	19.550	1.00365.93	C
ATOM	159	CD1	LEU	21	-46.422	-5.852	20.236	1.00365.93	C
ATOM	160	CD2	LEU	21	-48.272	-4.093	20.504	1.00365.93	C
ATOM	161	C	LEU	21	-46.550	-2.079	19.222	1.00365.93	C
ATOM	162	O	LEU	21	-46.369	-1.874	20.420	1.00365.93	O
ATOM	163	N	GLU	22	-47.230	-1.232	18.444	1.00353.20	N
ATOM	164	CA	GLU	22	-47.884	-0.078	18.970	1.00353.20	C
ATOM	165	CB	GLU	22	-48.679	-0.407	20.244	1.00353.20	C
ATOM	166	CG	GLU	22	-49.743	-1.490	20.034	1.00353.20	C
ATOM	167	CD	GLU	22	-50.928	-0.882	19.304	1.00353.20	C
ATOM	168	OE1	GLU	22	-51.072	0.366	19.375	1.00353.20	O
ATOM	169	OE2	GLU	22	-51.705	-1.649	18.675	1.00353.20	O
ATOM	170	C	GLU	22	-46.837	0.928	19.328	1.00353.20	C
ATOM	171	O	GLU	22	-47.176	2.063	19.636	1.00353.20	O
ATOM	172	N	GLU	23	-45.544	0.546	19.270	1.00150.94	N
ATOM	173	CA	GLU	23	-44.423	1.421	19.480	1.00150.94	C
ATOM	174	CB	GLU	23	-43.107	0.654	19.662	1.00150.94	C
ATOM	175	CG	GLU	23	-41.886	1.532	19.900	1.00150.94	C
ATOM	176	CD	GLU	23	-40.695	0.597	20.045	1.00150.94	C
ATOM	177	OE1	GLU	23	-40.860	-0.484	20.671	1.00150.94	O
ATOM	178	OE2	GLU	23	-39.605	0.951	19.525	1.00150.94	O
ATOM	179	C	GLU	23	-44.305	2.230	18.242	1.00150.94	C
ATOM	180	O	GLU	23	-43.926	3.399	18.258	1.00150.94	O
ATOM	181	N	GLN	24	-44.650	1.584	17.120	1.00147.31	N
ATOM	182	CA	GLN	24	-44.596	2.222	15.849	1.00147.31	C
ATOM	183	CB	GLN	24	-45.136	1.334	14.715	1.00147.31	C
ATOM	184	CG	GLN	24	-44.246	0.140	14.363	1.00147.31	C
ATOM	185	CD	GLN	24	-43.122	0.648	13.475	1.00147.31	C
ATOM	186	OE1	GLN	24	-42.776	0.021	12.475	1.00147.31	O
ATOM	187	NE2	GLN	24	-42.537	1.818	13.848	1.00147.31	N
ATOM	188	C	GLN	24	-45.507	3.385	15.964	1.00147.31	C
ATOM	189	O	GLN	24	-45.239	4.450	15.414	1.00147.31	O
ATOM	190	N	LYS	25	-46.600	3.215	16.725	1.00167.60	N
ATOM	191	CA	LYS	25	-47.556	4.275	16.800	1.00167.60	C
ATOM	192	CB	LYS	25	-48.804	3.940	17.631	1.00167.60	C
ATOM	193	CG	LYS	25	-49.683	2.913	16.914	1.00167.60	C
ATOM	194	CD	LYS	25	-50.946	2.504	17.671	1.00167.60	C
ATOM	195	CE	LYS	25	-51.808	1.495	16.903	1.00167.60	C
ATOM	196	NZ	LYS	25	-53.040	1.173	17.661	1.00167.60	N
ATOM	197	C	LYS	25	-46.908	5.516	17.321	1.00167.60	C

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ATOM    198  O   LYS    25     -47.244   6.593  16.837  1.00167.60           O
ATOM    199  N   PRO    26     -46.017   5.488  18.270  1.00186.26           N
ATOM    200  CA  PRO    26     -45.435   6.744  18.623  1.00186.26           C
ATOM    201  CD  PRO    26     -46.165   4.652  19.443  1.00186.26           C
ATOM    202  CB  PRO    26     -44.689   6.516  19.933  1.00186.26           C
ATOM    203  CG  PRO    26     -45.536   5.429  20.613  1.00186.26           C
ATOM    204  C   PRO    26     -44.633   7.341  17.520  1.00186.26           C
ATOM    205  O   PRO    26     -44.617   8.564  17.401  1.00186.26           O
ATOM    206  N   LEU    27     -43.963   6.521  16.693  1.00164.80           N
ATOM    207  CA  LEU    27     -43.181   7.139  15.669  1.00164.80           C
ATOM    208  CB  LEU    27     -42.386   6.133  14.826  1.00164.80           C
ATOM    209  CG  LEU    27     -41.321   5.374  15.633  1.00164.80           C
ATOM    210  CD1 LEU    27     -41.961   4.427  16.655  1.00164.80           C
ATOM    211  CD2 LEU    27     -40.309   4.681  14.711  1.00164.80           C
ATOM    212  C   LEU    27     -44.106   7.847  14.765  1.00164.80           C
ATOM    213  O   LEU    27     -43.903   9.007  14.411  1.00164.80           O
ATOM    214  N   PHE    28     -45.172   7.160  14.347  1.00181.02           N
ATOM    215  CA  PHE    28     -45.966   7.887  13.430  1.00181.02           C
ATOM    216  CB  PHE    28     -46.263   7.196  12.114  1.00181.02           C
ATOM    217  CG  PHE    28     -44.912   7.486  11.510  1.00181.02           C
ATOM    218  CD1 PHE    28     -43.763   6.846  11.917  1.00181.02           C
ATOM    219  CD2 PHE    28     -44.750   8.458  10.565  1.00181.02           C
ATOM    220  CE1 PHE    28     -42.525   7.113  11.377  1.00181.02           C
ATOM    221  CE2 PHE    28     -43.527   8.746  10.006  1.00181.02           C
ATOM    222  CZ  PHE    28     -42.402   8.065  10.397  1.00181.02           C
ATOM    223  C   PHE    28     -46.924   8.873  14.012  1.00181.02           C
ATOM    224  O   PHE    28     -47.352   9.800  13.325  1.00181.02           O
ATOM    225  N   GLY    29     -47.318   8.705  15.286  1.00 63.00           N
ATOM    226  CA  GLY    29     -48.138   9.730  15.856  1.00 63.00           C
ATOM    227  C   GLY    29     -47.306  10.971  15.796  1.00 63.00           C
ATOM    228  O   GLY    29     -47.805  12.061  15.512  1.00 63.00           O
ATOM    229  N   SER    30     -45.993  10.816  16.045  1.00 95.47           N
ATOM    230  CA  SER    30     -45.092  11.927  16.033  1.00 95.47           C
ATOM    231  CB  SER    30     -43.646  11.516  16.353  1.00 95.47           C
ATOM    232  OG  SER    30     -42.801  12.656  16.322  1.00 95.47           O
ATOM    233  C   SER    30     -45.093  12.547  14.670  1.00 95.47           C
ATOM    234  O   SER    30     -45.203  13.765  14.536  1.00 95.47           O
ATOM    235  N   PHE    31     -44.996  11.723  13.610  1.00172.19           N
ATOM    236  CA  PHE    31     -44.946  12.286  12.293  1.00172.19           C
ATOM    237  CB  PHE    31     -44.507  11.312  11.201  1.00172.19           C
ATOM    238  CG  PHE    31     -43.032  11.294  11.394  1.00172.19           C
ATOM    239  CD1 PHE    31     -42.254  12.230  10.757  1.00172.19           C
ATOM    240  CD2 PHE    31     -42.430  10.380  12.226  1.00172.19           C
ATOM    241  CE1 PHE    31     -40.891  12.248  10.928  1.00172.19           C
ATOM    242  CE2 PHE    31     -41.066  10.391  12.399  1.00172.19           C
ATOM    243  CZ  PHE    31     -40.293  11.325  11.751  1.00172.19           C
ATOM    244  C   PHE    31     -46.232  12.967  11.959  1.00172.19           C
ATOM    245  O   PHE    31     -46.246  13.947  11.219  1.00172.19           O
ATOM    246  N   LEU    32     -47.365  12.465  12.470  1.00102.78           N
ATOM    247  CA  LEU    32     -48.587  13.137  12.143  1.00102.78           C
ATOM    248  CB  LEU    32     -49.823  12.443  12.742  1.00102.78           C
ATOM    249  CG  LEU    32     -51.148  13.150  12.397  1.00102.78           C
ATOM    250  CD1 LEU    32     -51.416  13.142  10.884  1.00102.78           C
ATOM    251  CD2 LEU    32     -52.315  12.561  13.206  1.00102.78           C
ATOM    252  C   LEU    32     -48.550  14.544  12.672  1.00102.78           C
ATOM    253  O   LEU    32     -48.857  15.489  11.948  1.00102.78           O
ATOM    254  N   PHE    33     -48.140  14.738  13.942  1.00130.93           N
ATOM    255  CA  PHE    33     -48.180  16.067  14.494  1.00130.93           C
ATOM    256  CB  PHE    33     -47.695  16.168  15.952  1.00130.93           C
ATOM    257  CG  PHE    33     -48.576  15.389  16.863  1.00130.93           C
ATOM    258  CD1 PHE    33     -49.768  15.910  17.310  1.00130.93           C
ATOM    259  CD2 PHE    33     -48.205  14.128  17.267  1.00130.93           C
ATOM    260  CE1 PHE    33     -50.574  15.182  18.153  1.00130.93           C
ATOM    261  CE2 PHE    33     -49.006  13.396  18.110  1.00130.93           C
ATOM    262  CZ  PHE    33     -50.195  13.923  18.554  1.00130.93           C
ATOM    263  C   PHE    33     -47.247  16.940  13.733  1.00130.93           C
ATOM    264  O   PHE    33     -47.608  18.042  13.326  1.00130.93           O
ATOM    265  N   MET    34     -46.019  16.446  13.505  1.00134.78           N
ATOM    266  CA  MET    34     -45.003  17.254  12.906  1.00134.78           C
ATOM    267  CB  MET    34     -43.650  16.528  12.811  1.00134.78           C
ATOM    268  CG  MET    34     -43.017  16.242  14.176  1.00134.78           C
ATOM    269  SD  MET    34     -42.514  17.725  15.102  1.00134.78           S
ATOM    270  CE  MET    34     -41.874  16.826  16.545  1.00134.78           C
ATOM    271  C   MET    34     -45.420  17.638  11.538  1.00134.78           C
ATOM    272  O   MET    34     -45.183  18.754  11.080  1.00134.78           O
ATOM    273  N   TYR    35     -46.037  16.706  10.813  1.00510.11           N
ATOM    274  CA  TYR    35     -46.334  17.063   9.475  1.00510.11           C
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ATOM    275  CB  TYR    35     -46.221  15.875   8.527  1.00510.11           C
ATOM    276  CG  TYR    35     -44.734  15.798   8.710  1.00510.11           C
ATOM    277  CD1 TYR    35     -43.921  16.635   7.985  1.00510.11           C
ATOM    278  CD2 TYR    35     -44.141  14.976   9.644  1.00510.11           C
ATOM    279  CE1 TYR    35     -42.559  16.642   8.139  1.00510.11           C
ATOM    280  CE2 TYR    35     -42.771  14.971   9.806  1.00510.11           C
ATOM    281  CZ  TYR    35     -41.985  15.807   9.049  1.00510.11           C
ATOM    282  OH  TYR    35     -40.590  15.838   9.189  1.00510.11           O
ATOM    283  C   TYR    35     -47.453  18.039   9.359  1.00510.11           C
ATOM    284  O   TYR    35     -47.452  18.888   8.471  1.00510.11           O
ATOM    285  N   LEU    36     -48.449  17.976  10.252  1.00289.14           N
ATOM    286  CA  LEU    36     -49.449  18.995  10.142  1.00289.14           C
ATOM    287  CB  LEU    36     -50.593  18.850  11.160  1.00289.14           C
ATOM    288  CG  LEU    36     -51.648  17.795  10.778  1.00289.14           C
ATOM    289  CD1 LEU    36     -51.038  16.403  10.564  1.00289.14           C
ATOM    290  CD2 LEU    36     -52.796  17.785  11.801  1.00289.14           C
ATOM    291  C   LEU    36     -48.814  20.336  10.363  1.00289.14           C
ATOM    292  O   LEU    36     -49.063  21.276   9.610  1.00289.14           O
ATOM    293  N   VAL    37     -47.954  20.463  11.392  1.00227.29           N
ATOM    294  CA  VAL    37     -47.377  21.742  11.707  1.00227.29           C
ATOM    295  CB  VAL    37     -46.600  21.751  12.993  1.00227.29           C
ATOM    296  CG1 VAL    37     -47.555  21.381  14.141  1.00227.29           C
ATOM    297  CG2 VAL    37     -45.381  20.829  12.855  1.00227.29           C
ATOM    298  C   VAL    37     -46.464  22.215  10.615  1.00227.29           C
ATOM    299  O   VAL    37     -46.481  23.392  10.259  1.00227.29           O
ATOM    300  N   THR    38     -45.634  21.320  10.049  1.00123.82           N
ATOM    301  CA  THR    38     -44.687  21.750   9.061  1.00123.82           C
ATOM    302  CB  THR    38     -43.696  20.692   8.687  1.00123.82           C
ATOM    303  OG1 THR    38     -43.082  20.169   9.856  1.00123.82           O
ATOM    304  CG2 THR    38     -42.609  21.379   7.843  1.00123.82           C
ATOM    305  C   THR    38     -45.431  22.190   7.837  1.00123.82           C
ATOM    306  O   THR    38     -45.015  23.118   7.142  1.00123.82           O
ATOM    307  N   VAL    39     -46.550  21.511   7.524  1.00367.98           N
ATOM    308  CA  VAL    39     -47.318  21.863   6.366  1.00367.98           C
ATOM    309  CB  VAL    39     -48.512  20.973   6.169  1.00367.98           C
ATOM    310  CG1 VAL    39     -49.358  21.567   5.031  1.00367.98           C
ATOM    311  CG2 VAL    39     -48.064  19.540   5.879  1.00367.98           C
ATOM    312  C   VAL    39     -47.854  23.251   6.520  1.00367.98           C
ATOM    313  O   VAL    39     -47.726  24.079   5.620  1.00367.98           O
ATOM    314  N   ALA    40     -48.459  23.550   7.683  1.00104.95           N
ATOM    315  CA  ALA    40     -49.107  24.818   7.838  1.00104.95           C
ATOM    316  CB  ALA    40     -49.816  24.957   9.196  1.00104.95           C
ATOM    317  C   ALA    40     -48.122  25.937   7.739  1.00104.95           C
ATOM    318  O   ALA    40     -48.344  26.895   7.003  1.00104.95           O
ATOM    319  N   GLY    41     -46.985  25.835   8.448  1.00 74.16           N
ATOM    320  CA  GLY    41     -46.050  26.924   8.488  1.00 74.16           C
ATOM    321  C   GLY    41     -45.476  27.189   7.132  1.00 74.16           C
ATOM    322  O   GLY    41     -45.325  28.343   6.734  1.00 74.16           O
ATOM    323  N   ASN    42     -45.123  26.124   6.390  1.00184.11           N
ATOM    324  CA  ASN    42     -44.497  26.295   5.110  1.00184.11           C
ATOM    325  CB  ASN    42     -44.004  24.978   4.492  1.00184.11           C
ATOM    326  CG  ASN    42     -42.784  24.529   5.283  1.00184.11           C
ATOM    327  OD1 ASN    42     -41.885  25.320   5.564  1.00184.11           O
ATOM    328  ND2 ASN    42     -42.751  23.222   5.654  1.00184.11           N
ATOM    329  C   ASN    42     -45.470  26.916   4.168  1.00184.11           C
ATOM    330  O   ASN    42     -45.101  27.745   3.338  1.00184.11           O
ATOM    331  N   LEU    43     -46.747  26.515   4.270  1.00294.30           N
ATOM    332  CA  LEU    43     -47.758  27.054   3.414  1.00294.30           C
ATOM    333  CB  LEU    43     -49.149  26.455   3.685  1.00294.30           C
ATOM    334  CG  LEU    43     -49.242  24.944   3.409  1.00294.30           C
ATOM    335  CD1 LEU    43     -50.655  24.414   3.702  1.00294.30           C
ATOM    336  CD2 LEU    43     -48.759  24.601   1.993  1.00294.30           C
ATOM    337  C   LEU    43     -47.854  28.522   3.691  1.00294.30           C
ATOM    338  O   LEU    43     -47.949  29.325   2.768  1.00294.30           O
ATOM    339  N   LEU    44     -47.816  28.927   4.975  1.00176.93           N
ATOM    340  CA  LEU    44     -47.943  30.326   5.269  1.00176.93           C
ATOM    341  CB  LEU    44     -47.946  30.664   6.773  1.00176.93           C
ATOM    342  CG  LEU    44     -49.312  30.514   7.473  1.00176.93           C
ATOM    343  CD1 LEU    44     -50.283  31.615   7.023  1.00176.93           C
ATOM    344  CD2 LEU    44     -49.912  29.117   7.285  1.00176.93           C
ATOM    345  C   LEU    44     -46.813  31.071   4.653  1.00176.93           C
ATOM    346  O   LEU    44     -47.011  32.136   4.070  1.00176.93           O
ATOM    347  N   ILE    45     -45.587  30.539   4.768  1.00267.43           N
ATOM    348  CA  ILE    45     -44.472  31.238   4.219  1.00267.43           C
ATOM    349  CB  ILE    45     -43.146  30.706   4.697  1.00267.43           C
ATOM    350  CG2 ILE    45     -43.069  30.983   6.206  1.00267.43           C
ATOM    351  CG1 ILE    45     -42.943  29.229   4.338  1.00267.43           C
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ATOM    352  CD1 ILE    45     -41.593  28.704   4.827  1.00267.43           C
ATOM    353  C   ILE    45     -44.568  31.287   2.722  1.00267.43           C
ATOM    354  O   ILE    45     -44.303  32.329   2.121  1.00267.43           O
ATOM    355  N   ILE    46     -44.971  30.179   2.072  1.00340.80           N
ATOM    356  CA  ILE    46     -45.040  30.174   0.637  1.00340.80           C
ATOM    357  CB  ILE    46     -45.363  28.821   0.060  1.00340.80           C
ATOM    358  CG2 ILE    46     -44.215  27.869   0.420  1.00340.80           C
ATOM    359  CG1 ILE    46     -46.739  28.325   0.521  1.00340.80           C
ATOM    360  CD1 ILE    46     -47.203  27.057  -0.193  1.00340.80           C
ATOM    361  C   ILE    46     -46.066  31.153   0.145  1.00340.80           C
ATOM    362  O   ILE    46     -45.791  31.922  -0.774  1.00340.80           O
ATOM    363  N   LEU    47     -47.277  31.156   0.739  1.00142.21           N
ATOM    364  CA  LEU    47     -48.325  32.035   0.293  1.00142.21           C
ATOM    365  CB  LEU    47     -49.684  31.763   0.967  1.00142.21           C
ATOM    366  CG  LEU    47     -50.414  30.518   0.421  1.00142.21           C
ATOM    367  CD1 LEU    47     -49.569  29.243   0.563  1.00142.21           C
ATOM    368  CD2 LEU    47     -51.810  30.377   1.052  1.00142.21           C
ATOM    369  C   LEU    47     -47.971  33.470   0.532  1.00142.21           C
ATOM    370  O   LEU    47     -48.203  34.319  -0.326  1.00142.21           O
ATOM    371  N   VAL    48     -47.388  33.782   1.701  1.00 91.77           N
ATOM    372  CA  VAL    48     -47.083  35.140   2.043  1.00 91.77           C
ATOM    373  CB  VAL    48     -46.430  35.228   3.392  1.00 91.77           C
ATOM    374  CG1 VAL    48     -45.873  36.642   3.593  1.00 91.77           C
ATOM    375  CG2 VAL    48     -47.463  34.818   4.454  1.00 91.77           C
ATOM    376  C   VAL    48     -46.138  35.717   1.040  1.00 91.77           C
ATOM    377  O   VAL    48     -46.357  36.815   0.532  1.00 91.77           O
ATOM    378  N   ILE    49     -45.076  34.969   0.700  1.00168.56           N
ATOM    379  CA  ILE    49     -44.056  35.472  -0.170  1.00168.56           C
ATOM    380  CB  ILE    49     -42.950  34.464  -0.340  1.00168.56           C
ATOM    381  CG2 ILE    49     -41.892  35.030  -1.299  1.00168.56           C
ATOM    382  CG1 ILE    49     -42.357  34.105   1.034  1.00168.56           C
ATOM    383  CD1 ILE    49     -41.445  32.881   1.000  1.00168.56           C
ATOM    384  C   ILE    49     -44.656  35.780  -1.506  1.00168.56           C
ATOM    385  O   ILE    49     -44.407  36.841  -2.075  1.00168.56           O
ATOM    386  N   ILE    50     -45.481  34.865  -2.042  1.00 99.61           N
ATOM    387  CA  ILE    50     -46.067  35.081  -3.333  1.00 99.61           C
ATOM    388  CB  ILE    50     -46.849  33.892  -3.813  1.00 99.61           C
ATOM    389  CG2 ILE    50     -47.555  34.286  -5.122  1.00 99.61           C
ATOM    390  CG1 ILE    50     -45.929  32.668  -3.954  1.00 99.61           C
ATOM    391  CD1 ILE    50     -46.686  31.354  -4.139  1.00 99.61           C
ATOM    392  C   ILE    50     -47.009  36.246  -3.277  1.00 99.61           C
ATOM    393  O   ILE    50     -46.987  37.111  -4.151  1.00 99.61           O
ATOM    394  N   THR    51     -47.851  36.306  -2.227  1.00177.02           N
ATOM    395  CA  THR    51     -48.878  37.308  -2.142  1.00177.02           C
ATOM    396  CB  THR    51     -49.746  37.165  -0.923  1.00177.02           C
ATOM    397  OG1 THR    51     -48.966  37.298   0.257  1.00177.02           O
ATOM    398  CG2 THR    51     -50.436  35.791  -0.960  1.00177.02           C
ATOM    399  C   THR    51     -48.287  38.676  -2.097  1.00177.02           C
ATOM    400  O   THR    51     -48.728  39.562  -2.827  1.00177.02           O
ATOM    401  N   ASP    52     -47.262  38.892  -1.251  1.00172.72           N
ATOM    402  CA  ASP    52     -46.744  40.223  -1.145  1.00172.72           C
ATOM    403  CB  ASP    52     -46.227  40.592   0.265  1.00172.72           C
ATOM    404  CG  ASP    52     -45.149  39.635   0.756  1.00172.72           C
ATOM    405  OD1 ASP    52     -44.749  38.708   0.003  1.00172.72           O
ATOM    406  OD2 ASP    52     -44.718  39.826   1.924  1.00172.72           O
ATOM    407  C   ASP    52     -45.702  40.466  -2.193  1.00172.72           C
ATOM    408  O   ASP    52     -44.689  39.776  -2.289  1.00172.72           O
ATOM    409  N   THR    53     -45.957  41.491  -3.028  1.00 71.77           N
ATOM    410  CA  THR    53     -45.100  41.839  -4.122  1.00 71.77           C
ATOM    411  CB  THR    53     -45.643  42.963  -4.955  1.00 71.77           C
ATOM    412  OG1 THR    53     -46.920  42.619  -5.474  1.00 71.77           O
ATOM    413  CG2 THR    53     -44.661  43.229  -6.109  1.00 71.77           C
ATOM    414  C   THR    53     -43.787  42.280  -3.569  1.00 71.77           C
ATOM    415  O   THR    53     -42.737  42.059  -4.169  1.00 71.77           O
ATOM    416  N   GLN    54     -43.821  42.911  -2.382  1.00376.32           N
ATOM    417  CA  GLN    54     -42.654  43.476  -1.770  1.00376.32           C
ATOM    418  CB  GLN    54     -42.960  44.172  -0.431  1.00376.32           C
ATOM    419  CG  GLN    54     -43.461  43.228   0.663  1.00376.32           C
ATOM    420  CD  GLN    54     -43.712  44.057   1.916  1.00376.32           C
ATOM    421  OE1 GLN    54     -44.171  43.545   2.937  1.00376.32           O
ATOM    422  NE2 GLN    54     -43.413  45.380   1.832  1.00376.32           N
ATOM    423  C   GLN    54     -41.633  42.418  -1.511  1.00376.32           C
ATOM    424  O   GLN    54     -40.440  42.685  -1.634  1.00376.32           O
ATOM    425  N   LEU    55     -42.038  41.190  -1.142  1.00455.19           N
ATOM    426  CA  LEU    55     -41.000  40.256  -0.801  1.00455.19           C
ATOM    427  CB  LEU    55     -41.465  39.193   0.212  1.00455.19           C
ATOM    428  CG  LEU    55     -41.998  39.776   1.539  1.00455.19           C
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ATOM    429  CD1 LEU    55     -42.314  38.660   2.552  1.00455.19           C
ATOM    430  CD2 LEU    55     -41.066  40.861   2.103  1.00455.19           C
ATOM    431  C   LEU    55     -40.534  39.515  -2.027  1.00455.19           C
ATOM    432  O   LEU    55     -40.839  38.336  -2.189  1.00455.19           O
ATOM    433  N   HIS    56     -39.737  40.154  -2.913  1.00282.13           N
ATOM    434  CA  HIS    56     -39.291  39.408  -4.059  1.00282.13           C
ATOM    435  ND1 HIS    56     -42.270  40.032  -6.382  1.00282.13           N
ATOM    436  CG  HIS    56     -41.397  39.515  -5.450  1.00282.13           C
ATOM    437  CB  HIS    56     -39.940  39.862  -5.376  1.00282.13           C
ATOM    438  NE2 HIS    56     -43.450  38.640  -5.111  1.00282.13           N
ATOM    439  CD2 HIS    56     -42.135  38.667  -4.682  1.00282.13           C
ATOM    440  CE1 HIS    56     -43.482  39.475  -6.134  1.00282.13           C
ATOM    441  C   HIS    56     -37.817  39.572  -4.203  1.00282.13           C
ATOM    442  O   HIS    56     -37.307  39.772  -5.306  1.00282.13           O
ATOM    443  N   THR    57     -37.076  39.454  -3.090  1.00184.32           N
ATOM    444  CA  THR    57     -35.662  39.593  -3.222  1.00184.32           C
ATOM    445  CB  THR    57     -34.969  40.145  -2.010  1.00184.32           C
ATOM    446  OG1 THR    57     -35.070  39.239  -0.924  1.00184.32           O
ATOM    447  CG2 THR    57     -35.621  41.488  -1.644  1.00184.32           C
ATOM    448  C   THR    57     -35.127  38.228  -3.473  1.00184.32           C
ATOM    449  O   THR    57     -35.866  37.247  -3.429  1.00184.32           O
ATOM    450  N   PRO    58     -33.863  38.125  -3.758  1.00505.30           N
ATOM    451  CA  PRO    58     -33.304  36.830  -3.978  1.00505.30           C
ATOM    452  CD  PRO    58     -33.116  39.173  -4.435  1.00505.30           C
ATOM    453  CB  PRO    58     -31.875  37.076  -4.456  1.00505.30           C
ATOM    454  CG  PRO    58     -31.963  38.448  -5.154  1.00505.30           C
ATOM    455  C   PRO    58     -33.424  36.060  -2.704  1.00505.30           C
ATOM    456  O   PRO    58     -33.543  34.839  -2.766  1.00505.30           O
ATOM    457  N   MET    59     -33.389  36.757  -1.548  1.00411.23           N
ATOM    458  CA  MET    59     -33.477  36.144  -0.248  1.00411.23           C
ATOM    459  CB  MET    59     -33.315  37.161   0.894  1.00411.23           C
ATOM    460  CG  MET    59     -31.943  37.837   0.923  1.00411.23           C
ATOM    461  SD  MET    59     -31.769  39.125   2.194  1.00411.23           S
ATOM    462  CE  MET    59     -31.862  37.981   3.601  1.00411.23           C
ATOM    463  C   MET    59     -34.830  35.527  -0.087  1.00411.23           C
ATOM    464  O   MET    59     -34.974  34.415   0.421  1.00411.23           O
ATOM    465  N   TYR    60     -35.871  36.251  -0.526  1.00102.91           N
ATOM    466  CA  TYR    60     -37.208  35.759  -0.390  1.00102.91           C
ATOM    467  CB  TYR    60     -38.299  36.780  -0.760  1.00102.91           C
ATOM    468  CG  TYR    60     -38.329  37.798   0.329  1.00102.91           C
ATOM    469  CD1 TYR    60     -39.117  37.603   1.441  1.00102.91           C
ATOM    470  CD2 TYR    60     -37.568  38.940   0.254  1.00102.91           C
ATOM    471  CE1 TYR    60     -39.147  38.532   2.454  1.00102.91           C
ATOM    472  CE2 TYR    60     -37.593  39.875   1.262  1.00102.91           C
ATOM    473  CZ  TYR    60     -38.383  39.672   2.366  1.00102.91           C
ATOM    474  OH  TYR    60     -38.413  40.629   3.403  1.00102.91           O
ATOM    475  C   TYR    60     -37.365  34.541  -1.245  1.00102.91           C
ATOM    476  O   TYR    60     -38.109  33.632  -0.883  1.00102.91           O
ATOM    477  N   PHE    61     -36.712  34.514  -2.427  1.00170.31           N
ATOM    478  CA  PHE    61     -36.789  33.373  -3.301  1.00170.31           C
ATOM    479  CB  PHE    61     -36.061  33.574  -4.641  1.00170.31           C
ATOM    480  CG  PHE    61     -36.960  34.337  -5.555  1.00170.31           C
ATOM    481  CD1 PHE    61     -37.035  35.711  -5.514  1.00170.31           C
ATOM    482  CD2 PHE    61     -37.748  33.655  -6.454  1.00170.31           C
ATOM    483  CE1 PHE    61     -37.875  36.387  -6.370  1.00170.31           C
ATOM    484  CE2 PHE    61     -38.589  34.325  -7.310  1.00170.31           C
ATOM    485  CZ  PHE    61     -38.651  35.696  -7.270  1.00170.31           C
ATOM    486  C   PHE    61     -36.169  32.185  -2.638  1.00170.31           C
ATOM    487  O   PHE    61     -36.735  31.093  -2.642  1.00170.31           O
ATOM    488  N   PHE    62     -34.993  32.384  -2.025  1.00343.80           N
ATOM    489  CA  PHE    62     -34.271  31.336  -1.367  1.00343.80           C
ATOM    490  CB  PHE    62     -33.039  31.902  -0.630  1.00343.80           C
ATOM    491  CG  PHE    62     -32.654  30.955   0.457  1.00343.80           C
ATOM    492  CD1 PHE    62     -31.848  29.874   0.209  1.00343.80           C
ATOM    493  CD2 PHE    62     -33.101  31.160   1.746  1.00343.80           C
ATOM    494  CE1 PHE    62     -31.517  29.021   1.235  1.00343.80           C
ATOM    495  CE2 PHE    62     -32.770  30.304   2.769  1.00343.80           C
ATOM    496  CZ  PHE    62     -31.970  29.222   2.512  1.00343.80           C
ATOM    497  C   PHE    62     -35.142  30.737  -0.323  1.00343.80           C
ATOM    498  O   PHE    62     -35.236  29.517  -0.201  1.00343.80           O
ATOM    499  N   LEU    63     -35.790  31.597   0.475  1.00328.84           N
ATOM    500  CA  LEU    63     -36.604  31.110   1.540  1.00328.84           C
ATOM    501  CB  LEU    63     -37.231  32.225   2.380  1.00328.84           C
ATOM    502  CG  LEU    63     -38.096  31.651   3.508  1.00328.84           C
ATOM    503  CD1 LEU    63     -37.234  30.871   4.510  1.00328.84           C
ATOM    504  CD2 LEU    63     -38.960  32.732   4.165  1.00328.84           C
ATOM    505  C   LEU    63     -37.740  30.338   0.959  1.00328.84           C
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ATOM    506  O   LEU    63     -38.145  29.319   1.512  1.00328.84           O
ATOM    507  N   ALA    64     -38.303  30.827  -0.162  1.00 86.28           N
ATOM    508  CA  ALA    64     -39.426  30.169  -0.758  1.00 86.28           C
ATOM    509  CB  ALA    64     -39.971  30.922  -1.982  1.00 86.28           C
ATOM    510  C   ALA    64     -39.024  28.805  -1.221  1.00 86.28           C
ATOM    511  O   ALA    64     -39.762  27.844  -1.022  1.00 86.28           O
ATOM    512  N   ASN    65     -37.847  28.662  -1.861  1.00204.31           N
ATOM    513  CA  ASN    65     -37.549  27.350  -2.355  1.00204.31           C
ATOM    514  CB  ASN    65     -36.412  27.251  -3.381  1.00204.31           C
ATOM    515  CG  ASN    65     -35.107  27.112  -2.651  1.00204.31           C
ATOM    516  OD1 ASN    65     -34.716  25.992  -2.327  1.00204.31           O
ATOM    517  ND2 ASN    65     -34.420  28.255  -2.395  1.00204.31           N
ATOM    518  C   ASN    65     -37.245  26.469  -1.181  1.00204.31           C
ATOM    519  O   ASN    65     -37.507  25.270  -1.211  1.00204.31           O
ATOM    520  N   LEU    66     -36.657  27.047  -0.115  1.00277.01           N
ATOM    521  CA  LEU    66     -36.339  26.319   1.078  1.00277.01           C
ATOM    522  CB  LEU    66     -35.544  27.203   2.061  1.00277.01           C
ATOM    523  CG  LEU    66     -35.126  26.541   3.385  1.00277.01           C
ATOM    524  CD1 LEU    66     -34.103  27.415   4.119  1.00277.01           C
ATOM    525  CD2 LEU    66     -36.334  26.257   4.284  1.00277.01           C
ATOM    526  C   LEU    66     -37.637  25.847   1.677  1.00277.01           C
ATOM    527  O   LEU    66     -37.724  24.719   2.159  1.00277.01           O
ATOM    528  N   SER    67     -38.688  26.697   1.652  1.00 99.33           N
ATOM    529  CA  SER    67     -39.972  26.344   2.202  1.00 99.33           C
ATOM    530  CB  SER    67     -40.987  27.500   2.213  1.00 99.33           C
ATOM    531  OG  SER    67     -41.468  27.757   0.904  1.00 99.33           O
ATOM    532  C   SER    67     -40.580  25.266   1.359  1.00 99.33           C
ATOM    533  O   SER    67     -41.318  24.418   1.856  1.00 99.33           O
ATOM    534  N   LEU    68     -40.311  25.304   0.041  1.00132.83           N
ATOM    535  CA  LEU    68     -40.831  24.332  -0.874  1.00132.83           C
ATOM    536  CB  LEU    68     -40.468  24.685  -2.333  1.00132.83           C
ATOM    537  CG  LEU    68     -41.155  23.862  -3.444  1.00132.83           C
ATOM    538  CD1 LEU    68     -40.686  24.330  -4.830  1.00132.83           C
ATOM    539  CD2 LEU    68     -40.987  22.342  -3.265  1.00132.83           C
ATOM    540  C   LEU    68     -40.203  23.026  -0.518  1.00132.83           C
ATOM    541  O   LEU    68     -40.873  21.996  -0.489  1.00132.83           O
ATOM    542  N   ALA    69     -38.887  23.044  -0.227  1.00100.23           N
ATOM    543  CA  ALA    69     -38.159  21.851   0.099  1.00100.23           C
ATOM    544  CB  ALA    69     -36.670  22.133   0.369  1.00100.23           C
ATOM    545  C   ALA    69     -38.756  21.272   1.346  1.00100.23           C
ATOM    546  O   ALA    69     -38.923  20.061   1.460  1.00100.23           O
ATOM    547  N   ASP    70     -39.093  22.133   2.323  1.00140.31           N
ATOM    548  CA  ASP    70     -39.682  21.688   3.555  1.00140.31           C
ATOM    549  CB  ASP    70     -39.900  22.841   4.550  1.00140.31           C
ATOM    550  CG  ASP    70     -38.554  23.390   4.998  1.00140.31           C
ATOM    551  OD1 ASP    70     -37.539  22.650   4.897  1.00140.31           O
ATOM    552  OD2 ASP    70     -38.527  24.566   5.448  1.00140.31           O
ATOM    553  C   ASP    70     -41.045  21.137   3.263  1.00140.31           C
ATOM    554  O   ASP    70     -41.459  20.138   3.849  1.00140.31           O
ATOM    555  N   ALA    71     -41.791  21.803   2.361  1.00101.09           N
ATOM    556  CA  ALA    71     -43.125  21.388   2.029  1.00101.09           C
ATOM    557  CB  ALA    71     -43.815  22.342   1.036  1.00101.09           C
ATOM    558  C   ALA    71     -43.074  20.039   1.394  1.00101.09           C
ATOM    559  O   ALA    71     -43.909  19.183   1.684  1.00101.09           O
ATOM    560  N   CYS    72     -42.096  19.817   0.495  1.00132.02           N
ATOM    561  CA  CYS    72     -42.005  18.553  -0.173  1.00132.02           C
ATOM    562  CB  CYS    72     -40.986  18.502  -1.332  1.00132.02           C
ATOM    563  SG  CYS    72     -39.252  18.361  -0.810  1.00132.02           S
ATOM    564  C   CYS    72     -41.631  17.513   0.830  1.00132.02           C
ATOM    565  O   CYS    72     -42.036  16.362   0.714  1.00132.02           O
ATOM    566  N   PHE    73     -40.814  17.860   1.839  1.00133.93           N
ATOM    567  CA  PHE    73     -40.473  16.841   2.785  1.00133.93           C
ATOM    568  CB  PHE    73     -39.470  17.302   3.853  1.00133.93           C
ATOM    569  CG  PHE    73     -39.123  16.079   4.626  1.00133.93           C
ATOM    570  CD1 PHE    73     -38.117  15.247   4.192  1.00133.93           C
ATOM    571  CD2 PHE    73     -39.808  15.757   5.773  1.00133.93           C
ATOM    572  CE1 PHE    73     -37.794  14.112   4.896  1.00133.93           C
ATOM    573  CE2 PHE    73     -39.488  14.623   6.480  1.00133.93           C
ATOM    574  CZ  PHE    73     -38.480  13.798   6.044  1.00133.93           C
ATOM    575  C   PHE    73     -41.720  16.441   3.490  1.00133.93           C
ATOM    576  O   PHE    73     -42.022  15.256   3.634  1.00133.93           O
ATOM    577  N   VAL    74     -42.486  17.448   3.939  1.00111.19           N
ATOM    578  CA  VAL    74     -43.667  17.181   4.686  1.00111.19           C
ATOM    579  CB  VAL    74     -44.329  18.415   5.180  1.00111.19           C
ATOM    580  CG1 VAL    74     -45.574  17.992   5.965  1.00111.19           C
ATOM    581  CG2 VAL    74     -43.299  19.201   6.000  1.00111.19           C
ATOM    582  C   VAL    74     -44.658  16.442   3.860  1.00111.19           C
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ATOM	583	O	VAL	74	-45.215	15.463	4.338	1.00111.19	O
ATOM	584	N	SER	75	-44.947	16.914	2.632	1.00154.67	N
ATOM	585	CA	SER	75	-45.942	16.308	1.783	1.00154.67	C
ATOM	586	CB	SER	75	-46.428	17.267	0.685	1.00154.67	C
ATOM	587	OG	SER	75	-47.061	18.394	1.272	1.00154.67	O
ATOM	588	C	SER	75	-45.464	15.065	1.091	1.00154.67	C
ATOM	589	O	SER	75	-46.160	14.055	1.063	1.00154.67	O
ATOM	590	N	THR	76	-44.298	15.127	0.430	1.00104.12	N
ATOM	591	CA	THR	76	-43.861	14.007	-0.353	1.00104.12	C
ATOM	592	CB	THR	76	-42.770	14.362	-1.312	1.00104.12	C
ATOM	593	OG1	THR	76	-43.176	15.441	-2.142	1.00104.12	O
ATOM	594	CG2	THR	76	-42.527	13.123	-2.183	1.00104.12	C
ATOM	595	C	THR	76	-43.385	12.831	0.454	1.00104.12	C
ATOM	596	O	THR	76	-43.876	11.719	0.279	1.00104.12	O
ATOM	597	N	THR	77	-42.371	13.037	1.320	1.00124.19	N
ATOM	598	CA	THR	77	-41.793	11.960	2.083	1.00124.19	C
ATOM	599	CB	THR	77	-40.419	12.276	2.594	1.00124.19	C
ATOM	600	OG1	THR	77	-39.547	12.570	1.515	1.00124.19	O
ATOM	601	CG2	THR	77	-39.897	11.053	3.367	1.00124.19	C
ATOM	602	C	THR	77	-42.593	11.588	3.285	1.00124.19	C
ATOM	603	O	THR	77	-42.817	10.410	3.562	1.00124.19	O
ATOM	604	N	VAL	78	-43.058	12.610	4.023	1.00196.14	N
ATOM	605	CA	VAL	78	-43.628	12.380	5.315	1.00196.14	C
ATOM	606	CB	VAL	78	-43.978	13.623	6.044	1.00196.14	C
ATOM	607	CG1	VAL	78	-44.656	13.194	7.355	1.00196.14	C
ATOM	608	CG2	VAL	78	-42.685	14.431	6.220	1.00196.14	C
ATOM	609	C	VAL	78	-44.859	11.534	5.273	1.00196.14	C
ATOM	610	O	VAL	78	-45.065	10.743	6.190	1.00196.14	O
ATOM	611	N	PRO	79	-45.726	11.651	4.317	1.00196.86	N
ATOM	612	CA	PRO	79	-46.896	10.840	4.377	1.00196.86	C
ATOM	613	CD	PRO	79	-45.973	12.883	3.614	1.00196.86	C
ATOM	614	CB	PRO	79	-47.859	11.387	3.329	1.00196.86	C
ATOM	615	CG	PRO	79	-47.470	12.871	3.259	1.00196.86	C
ATOM	616	C	PRO	79	-46.568	9.401	4.226	1.00196.86	C
ATOM	617	O	PRO	79	-47.251	8.579	4.832	1.00196.86	O
ATOM	618	N	LYS	80	-45.549	9.067	3.414	1.00231.11	N
ATOM	619	CA	LYS	80	-45.255	7.679	3.254	1.00231.11	C
ATOM	620	CB	LYS	80	-44.301	7.349	2.089	1.00231.11	C
ATOM	621	CG	LYS	80	-42.830	7.144	2.445	1.00231.11	C
ATOM	622	CD	LYS	80	-42.554	5.775	3.077	1.00231.11	C
ATOM	623	CE	LYS	80	-43.622	4.725	2.742	1.00231.11	C
ATOM	624	NZ	LYS	80	-43.649	4.444	1.286	1.00231.11	N
ATOM	625	C	LYS	80	-44.676	7.195	4.543	1.00231.11	C
ATOM	626	O	LYS	80	-44.939	6.070	4.957	1.00231.11	O
ATOM	627	N	MET	81	-43.864	8.040	5.214	1.00210.81	N
ATOM	628	CA	MET	81	-43.257	7.663	6.458	1.00210.81	C
ATOM	629	CB	MET	81	-42.206	8.669	6.967	1.00210.81	C
ATOM	630	CG	MET	81	-42.752	10.005	7.457	1.00210.81	C
ATOM	631	SD	MET	81	-41.468	11.213	7.902	1.00210.81	S
ATOM	632	CE	MET	81	-40.509	10.066	8.934	1.00210.81	C
ATOM	633	C	MET	81	-44.344	7.469	7.468	1.00210.81	C
ATOM	634	O	MET	81	-44.250	6.607	8.342	1.00210.81	O
ATOM	635	N	LEU	82	-45.405	8.290	7.380	1.00208.82	N
ATOM	636	CA	LEU	82	-46.514	8.158	8.280	1.00208.82	C
ATOM	637	CB	LEU	82	-47.563	9.268	8.070	1.00208.82	C
ATOM	638	CG	LEU	82	-48.591	9.429	9.209	1.00208.82	C
ATOM	639	CD1	LEU	82	-49.606	10.528	8.880	1.00208.82	C
ATOM	640	CD2	LEU	82	-49.262	8.108	9.600	1.00208.82	C
ATOM	641	C	LEU	82	-47.139	6.827	8.017	1.00208.82	C
ATOM	642	O	LEU	82	-47.445	6.069	8.937	1.00208.82	O
ATOM	643	N	ALA	83	-47.320	6.499	6.727	1.00 61.79	N
ATOM	644	CA	ALA	83	-47.935	5.263	6.352	1.00 61.79	C
ATOM	645	CB	ALA	83	-48.120	5.122	4.832	1.00 61.79	C
ATOM	646	C	ALA	83	-47.064	4.137	6.814	1.00 61.79	C
ATOM	647	O	ALA	83	-47.556	3.094	7.242	1.00 61.79	O
ATOM	648	N	ASN	84	-45.735	4.333	6.743	1.00 92.12	N
ATOM	649	CA	ASN	84	-44.792	3.308	7.077	1.00 92.12	C
ATOM	650	CB	ASN	84	-43.341	3.820	7.035	1.00 92.12	C
ATOM	651	CG	ASN	84	-42.396	2.666	7.332	1.00 92.12	C
ATOM	652	OD1	ASN	84	-42.823	1.541	7.589	1.00 92.12	O
ATOM	653	ND2	ASN	84	-41.070	2.965	7.311	1.00 92.12	N
ATOM	654	C	ASN	84	-45.059	2.864	8.477	1.00 92.12	C
ATOM	655	O	ASN	84	-45.100	1.669	8.750	1.00 92.12	O
ATOM	656	N	ILE	85	-45.194	3.803	9.425	1.00161.84	N
ATOM	657	CA	ILE	85	-45.554	3.389	10.749	1.00161.84	C
ATOM	658	CB	ILE	85	-45.208	4.309	11.862	1.00161.84	C
ATOM	659	CG2	ILE	85	-46.324	4.260	12.917	1.00161.84	C

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ATOM    660  CG1 ILE    85     -43.791   3.953  12.352  1.00161.84           C
ATOM    661  CD1 ILE    85     -42.710   4.161  11.292  1.00161.84           C
ATOM    662  C   ILE    85     -46.972   2.942  10.890  1.00161.84           C
ATOM    663  O   ILE    85     -47.237   2.015  11.653  1.00161.84           O
ATOM    664  N   GLN    86     -47.925   3.578  10.183  1.00125.81           N
ATOM    665  CA  GLN    86     -49.306   3.229  10.386  1.00125.81           C
ATOM    666  CB  GLN    86     -50.272   3.972   9.448  1.00125.81           C
ATOM    667  CG  GLN    86     -50.489   5.440   9.811  1.00125.81           C
ATOM    668  CD  GLN    86     -51.471   5.499  10.973  1.00125.81           C
ATOM    669  OE1 GLN    86     -51.973   4.475  11.432  1.00125.81           O
ATOM    670  NE2 GLN    86     -51.757   6.735  11.462  1.00125.81           N
ATOM    671  C   GLN    86     -49.490   1.774  10.116  1.00125.81           C
ATOM    672  O   GLN    86     -50.136   1.078  10.896  1.00125.81           O
ATOM    673  N   ILE    87     -48.918   1.266   9.012  1.00252.87           N
ATOM    674  CA  ILE    87     -49.018  -0.141   8.759  1.00252.87           C
ATOM    675  CB  ILE    87     -49.453  -0.473   7.360  1.00252.87           C
ATOM    676  CG2 ILE    87     -49.338  -1.995   7.177  1.00252.87           C
ATOM    677  CG1 ILE    87     -50.857   0.083   7.071  1.00252.87           C
ATOM    678  CD1 ILE    87     -51.233   0.039   5.588  1.00252.87           C
ATOM    679  C   ILE    87     -47.626  -0.627   8.889  1.00252.87           C
ATOM    680  O   ILE    87     -46.751  -0.142   8.183  1.00252.87           O
ATOM    681  N   GLN    88     -47.369  -1.608   9.774  1.00205.89           N
ATOM    682  CA  GLN    88     -46.003  -1.990   9.980  1.00205.89           C
ATOM    683  CB  GLN    88     -45.829  -3.072  11.060  1.00205.89           C
ATOM    684  CG  GLN    88     -46.177  -2.556  12.458  1.00205.89           C
ATOM    685  CD  GLN    88     -45.980  -3.681  13.459  1.00205.89           C
ATOM    686  OE1 GLN    88     -46.809  -4.582  13.575  1.00205.89           O
ATOM    687  NE2 GLN    88     -44.857  -3.621  14.223  1.00205.89           N
ATOM    688  C   GLN    88     -45.425  -2.473   8.690  1.00205.89           C
ATOM    689  O   GLN    88     -45.855  -3.482   8.134  1.00205.89           O
ATOM    690  N   SER    89     -44.428  -1.705   8.199  1.00127.75           N
ATOM    691  CA  SER    89     -43.726  -1.937   6.968  1.00127.75           C
ATOM    692  CB  SER    89     -43.631  -3.413   6.540  1.00127.75           C
ATOM    693  OG  SER    89     -42.842  -4.141   7.470  1.00127.75           O
ATOM    694  C   SER    89     -44.448  -1.174   5.911  1.00127.75           C
ATOM    695  O   SER    89     -45.636  -0.889   6.042  1.00127.75           O
ATOM    696  N   GLN    90     -43.766  -0.808   4.815  1.00187.90           N
ATOM    697  CA  GLN    90     -44.523  -0.061   3.864  1.00187.90           C
ATOM    698  CB  GLN    90     -43.807   1.119   3.188  1.00187.90           C
ATOM    699  CG  GLN    90     -44.693   1.861   2.192  1.00187.90           C
ATOM    700  CD  GLN    90     -45.836   2.512   2.956  1.00187.90           C
ATOM    701  OE1 GLN    90     -46.806   2.983   2.364  1.00187.90           O
ATOM    702  NE2 GLN    90     -45.725   2.536   4.311  1.00187.90           N
ATOM    703  C   GLN    90     -45.053  -0.978   2.825  1.00187.90           C
ATOM    704  O   GLN    90     -44.330  -1.740   2.184  1.00187.90           O
ATOM    705  N   ALA    91     -46.379  -0.901   2.648  1.00 89.37           N
ATOM    706  CA  ALA    91     -47.093  -1.721   1.724  1.00 89.37           C
ATOM    707  CB  ALA    91     -48.604  -1.439   1.711  1.00 89.37           C
ATOM    708  C   ALA    91     -46.571  -1.408   0.373  1.00 89.37           C
ATOM    709  O   ALA    91     -46.426  -2.291  -0.470  1.00 89.37           O
ATOM    710  N   ILE    92     -46.264  -0.124   0.131  1.00320.34           N
ATOM    711  CA  ILE    92     -45.724   0.189  -1.148  1.00320.34           C
ATOM    712  CB  ILE    92     -45.928   1.618  -1.562  1.00320.34           C
ATOM    713  CG2 ILE    92     -47.444   1.842  -1.673  1.00320.34           C
ATOM    714  CG1 ILE    92     -45.236   2.593  -0.603  1.00320.34           C
ATOM    715  CD1 ILE    92     -45.423   4.057  -0.997  1.00320.34           C
ATOM    716  C   ILE    92     -44.287  -0.131  -0.989  1.00320.34           C
ATOM    717  O   ILE    92     -43.644   0.322  -0.048  1.00320.34           O
ATOM    718  N   SER    93     -43.788  -0.960  -1.920  1.00196.09           N
ATOM    719  CA  SER    93     -42.516  -1.616  -1.943  1.00196.09           C
ATOM    720  CB  SER    93     -42.401  -2.529  -3.188  1.00196.09           C
ATOM    721  OG  SER    93     -41.260  -3.373  -3.141  1.00196.09           O
ATOM    722  C   SER    93     -41.407  -0.611  -1.956  1.00196.09           C
ATOM    723  O   SER    93     -41.484   0.454  -1.347  1.00196.09           O
ATOM    724  N   TYR    94     -40.322  -0.948  -2.668  1.00212.56           N
ATOM    725  CA  TYR    94     -39.131  -0.169  -2.682  1.00212.56           C
ATOM    726  CB  TYR    94     -38.069  -0.697  -3.670  1.00212.56           C
ATOM    727  CG  TYR    94     -38.570  -0.547  -5.069  1.00212.56           C
ATOM    728  CD1 TYR    94     -38.382   0.631  -5.760  1.00212.56           C
ATOM    729  CD2 TYR    94     -39.216  -1.587  -5.697  1.00212.56           C
ATOM    730  CE1 TYR    94     -38.837   0.775  -7.048  1.00212.56           C
ATOM    731  CE2 TYR    94     -39.674  -1.449  -6.987  1.00212.56           C
ATOM    732  CZ  TYR    94     -39.488  -0.266  -7.663  1.00212.56           C
ATOM    733  OH  TYR    94     -39.957  -0.120  -8.986  1.00212.56           O
ATOM    734  C   TYR    94     -39.506   1.208  -3.105  1.00212.56           C
ATOM    735  O   TYR    94     -38.903   2.171  -2.646  1.00212.56           O
ATOM    736  N   SER    95     -40.494   1.341  -4.008  1.00 90.75           N
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ATOM    737  CA  SER    95     -40.880   2.630  -4.516  1.00 90.75           C
ATOM    738  CB  SER    95     -42.043   2.555  -5.518  1.00 90.75           C
ATOM    739  OG  SER    95     -41.642   1.833  -6.673  1.00 90.75           O
ATOM    740  C   SER    95     -41.307   3.541  -3.398  1.00 90.75           C
ATOM    741  O   SER    95     -40.948   4.717  -3.391  1.00 90.75           O
ATOM    742  N   GLY    96     -42.080   3.040  -2.416  1.00125.34           N
ATOM    743  CA  GLY    96     -42.507   3.885  -1.335  1.00125.34           C
ATOM    744  C   GLY    96     -41.285   4.361  -0.629  1.00125.34           C
ATOM    745  O   GLY    96     -41.228   5.500  -0.166  1.00125.34           O
ATOM    746  N   CYS    97     -40.280   3.475  -0.488  1.00164.87           N
ATOM    747  CA  CYS    97     -39.061   3.895   0.128  1.00164.87           C
ATOM    748  CB  CYS    97     -38.002   2.817   0.374  1.00164.87           C
ATOM    749  SG  CYS    97     -36.477   3.627   0.948  1.00164.87           S
ATOM    750  C   CYS    97     -38.420   4.880  -0.784  1.00164.87           C
ATOM    751  O   CYS    97     -37.725   5.797  -0.359  1.00164.87           O
ATOM    752  N   LEU    98     -38.622   4.702  -2.093  1.00133.56           N
ATOM    753  CA  LEU    98     -37.997   5.591  -3.010  1.00133.56           C
ATOM    754  CB  LEU    98     -38.382   5.298  -4.472  1.00133.56           C
ATOM    755  CG  LEU    98     -37.987   3.899  -4.978  1.00133.56           C
ATOM    756  CD1 LEU    98     -38.415   3.699  -6.440  1.00133.56           C
ATOM    757  CD2 LEU    98     -36.493   3.620  -4.767  1.00133.56           C
ATOM    758  C   LEU    98     -38.502   6.973  -2.713  1.00133.56           C
ATOM    759  O   LEU    98     -37.713   7.909  -2.629  1.00133.56           O
ATOM    760  N   LEU    99     -39.832   7.134  -2.527  1.00165.68           N
ATOM    761  CA  LEU    99     -40.418   8.428  -2.301  1.00165.68           C
ATOM    762  CB  LEU    99     -41.953   8.385  -2.205  1.00165.68           C
ATOM    763  CG  LEU    99     -42.642   7.912  -3.497  1.00165.68           C
ATOM    764  CD1 LEU    99     -44.171   7.890  -3.337  1.00165.68           C
ATOM    765  CD2 LEU    99     -42.176   8.732  -4.711  1.00165.68           C
ATOM    766  C   LEU    99     -39.943   9.010  -1.011  1.00165.68           C
ATOM    767  O   LEU    99     -39.496  10.157  -0.977  1.00165.68           O
ATOM    768  N   GLN   100     -40.024   8.245   0.096  1.00261.38           N
ATOM    769  CA  GLN   100     -39.618   8.860   1.323  1.00261.38           C
ATOM    770  CB  GLN   100     -40.074   8.169   2.632  1.00261.38           C
ATOM    771  CG  GLN   100     -39.527   6.774   2.912  1.00261.38           C
ATOM    772  CD  GLN   100     -39.935   6.364   4.325  1.00261.38           C
ATOM    773  OE1 GLN   100     -40.039   5.178   4.636  1.00261.38           O
ATOM    774  NE2 GLN   100     -40.157   7.370   5.214  1.00261.38           N
ATOM    775  C   GLN   100     -38.141   9.121   1.335  1.00261.38           C
ATOM    776  O   GLN   100     -37.708  10.194   1.749  1.00261.38           O
ATOM    777  N   LEU   101     -37.313   8.167   0.870  1.00198.52           N
ATOM    778  CA  LEU   101     -35.892   8.374   0.918  1.00198.52           C
ATOM    779  CB  LEU   101     -35.072   7.122   0.531  1.00198.52           C
ATOM    780  CG  LEU   101     -33.549   7.175   0.829  1.00198.52           C
ATOM    781  CD1 LEU   101     -32.871   5.871   0.401  1.00198.52           C
ATOM    782  CD2 LEU   101     -32.815   8.381   0.222  1.00198.52           C
ATOM    783  C   LEU   101     -35.516   9.468  -0.048  1.00198.52           C
ATOM    784  O   LEU   101     -34.788  10.386   0.319  1.00198.52           O
ATOM    785  N   TYR   102     -36.023   9.413  -1.299  1.00168.19           N
ATOM    786  CA  TYR   102     -35.593  10.296  -2.350  1.00168.19           C
ATOM    787  CB  TYR   102     -36.288  10.001  -3.692  1.00168.19           C
ATOM    788  CG  TYR   102     -35.938  11.088  -4.654  1.00168.19           C
ATOM    789  CD1 TYR   102     -34.733  11.081  -5.316  1.00168.19           C
ATOM    790  CD2 TYR   102     -36.823  12.114  -4.903  1.00168.19           C
ATOM    791  CE1 TYR   102     -34.414  12.082  -6.202  1.00168.19           C
ATOM    792  CE2 TYR   102     -36.512  13.120  -5.788  1.00168.19           C
ATOM    793  CZ  TYR   102     -35.302  13.103  -6.438  1.00168.19           C
ATOM    794  OH  TYR   102     -34.974  14.130  -7.348  1.00168.19           O
ATOM    795  C   TYR   102     -35.909  11.701  -2.009  1.00168.19           C
ATOM    796  O   TYR   102     -35.049  12.574  -2.101  1.00168.19           O
ATOM    797  N   PHE   103     -37.153  11.955  -1.585  1.00269.99           N
ATOM    798  CA  PHE   103     -37.518  13.299  -1.293  1.00269.99           C
ATOM    799  CB  PHE   103     -39.021  13.470  -1.063  1.00269.99           C
ATOM    800  CG  PHE   103     -39.601  13.368  -2.430  1.00269.99           C
ATOM    801  CD1 PHE   103     -39.876  12.141  -2.990  1.00269.99           C
ATOM    802  CD2 PHE   103     -39.835  14.507  -3.167  1.00269.99           C
ATOM    803  CE1 PHE   103     -40.406  12.055  -4.256  1.00269.99           C
ATOM    804  CE2 PHE   103     -40.365  14.427  -4.433  1.00269.99           C
ATOM    805  CZ  PHE   103     -40.653  13.198  -4.978  1.00269.99           C
ATOM    806  C   PHE   103     -36.727  13.761  -0.120  1.00269.99           C
ATOM    807  O   PHE   103     -36.261  14.896  -0.100  1.00269.99           O
ATOM    808  N   PHE   104     -36.529  12.877   0.874  1.00193.38           N
ATOM    809  CA  PHE   104     -35.820  13.219   2.073  1.00193.38           C
ATOM    810  CB  PHE   104     -35.683  12.010   3.020  1.00193.38           C
ATOM    811  CG  PHE   104     -34.700  12.345   4.090  1.00193.38           C
ATOM    812  CD1 PHE   104     -35.092  12.978   5.247  1.00193.38           C
ATOM    813  CD2 PHE   104     -33.372  12.016   3.934  1.00193.38           C
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ATOM    814  CE1 PHE   104     -34.174  13.280   6.225  1.00193.38           C
ATOM    815  CE2 PHE   104     -32.450  12.315   4.907  1.00193.38           C
ATOM    816  CZ  PHE   104     -32.851  12.950   6.056  1.00193.38           C
ATOM    817  C   PHE   104     -34.428  13.668   1.739  1.00193.38           C
ATOM    818  O   PHE   104     -33.987  14.724   2.185  1.00193.38           O
ATOM    819  N   MET   105     -33.683  12.872   0.953  1.00200.51           N
ATOM    820  CA  MET   105     -32.321  13.216   0.657  1.00200.51           C
ATOM    821  CB  MET   105     -31.595  12.119  -0.135  1.00200.51           C
ATOM    822  CG  MET   105     -30.090  12.358  -0.260  1.00200.51           C
ATOM    823  SD  MET   105     -29.168  12.160   1.294  1.00200.51           S
ATOM    824  CE  MET   105     -29.452  10.371   1.427  1.00200.51           C
ATOM    825  C   MET   105     -32.280  14.462  -0.166  1.00200.51           C
ATOM    826  O   MET   105     -31.453  15.345   0.062  1.00200.51           O
ATOM    827  N   LEU   106     -33.195  14.560  -1.147  1.00170.95           N
ATOM    828  CA  LEU   106     -33.224  15.666  -2.056  1.00170.95           C
ATOM    829  CB  LEU   106     -34.346  15.485  -3.105  1.00170.95           C
ATOM    830  CG  LEU   106     -34.412  16.503  -4.265  1.00170.95           C
ATOM    831  CD1 LEU   106     -35.575  16.156  -5.206  1.00170.95           C
ATOM    832  CD2 LEU   106     -34.511  17.961  -3.787  1.00170.95           C
ATOM    833  C   LEU   106     -33.485  16.897  -1.251  1.00170.95           C
ATOM    834  O   LEU   106     -32.831  17.922  -1.434  1.00170.95           O
ATOM    835  N   PHE   107     -34.441  16.807  -0.311  1.00196.82           N
ATOM    836  CA  PHE   107     -34.824  17.917   0.505  1.00196.82           C
ATOM    837  CB  PHE   107     -35.944  17.572   1.494  1.00196.82           C
ATOM    838  CG  PHE   107     -35.885  18.630   2.535  1.00196.82           C
ATOM    839  CD1 PHE   107     -36.309  19.908   2.270  1.00196.82           C
ATOM    840  CD2 PHE   107     -35.398  18.332   3.787  1.00196.82           C
ATOM    841  CE1 PHE   107     -36.250  20.881   3.240  1.00196.82           C
ATOM    842  CE2 PHE   107     -35.339  19.303   4.758  1.00196.82           C
ATOM    843  CZ  PHE   107     -35.763  20.580   4.488  1.00196.82           C
ATOM    844  C   PHE   107     -33.677  18.397   1.325  1.00196.82           C
ATOM    845  O   PHE   107     -33.414  19.596   1.372  1.00196.82           O
ATOM    846  N   VAL   108     -32.969  17.474   1.998  1.00131.02           N
ATOM    847  CA  VAL   108     -31.885  17.856   2.853  1.00131.02           C
ATOM    848  CB  VAL   108     -31.268  16.688   3.568  1.00131.02           C
ATOM    849  CG1 VAL   108     -30.076  17.195   4.400  1.00131.02           C
ATOM    850  CG2 VAL   108     -32.359  15.995   4.402  1.00131.02           C
ATOM    851  C   VAL   108     -30.814  18.495   2.022  1.00131.02           C
ATOM    852  O   VAL   108     -30.256  19.522   2.405  1.00131.02           O
ATOM    853  N   MET   109     -30.503  17.893   0.857  1.00182.29           N
ATOM    854  CA  MET   109     -29.456  18.385   0.003  1.00182.29           C
ATOM    855  CB  MET   109     -29.280  17.545  -1.278  1.00182.29           C
ATOM    856  CG  MET   109     -28.869  16.092  -1.046  1.00182.29           C
ATOM    857  SD  MET   109     -28.665  15.117  -2.569  1.00182.29           S
ATOM    858  CE  MET   109     -27.912  13.684  -1.743  1.00182.29           C
ATOM    859  C   MET   109     -29.810  19.756  -0.473  1.00182.29           C
ATOM    860  O   MET   109     -29.006  20.680  -0.381  1.00182.29           O
ATOM    861  N   LEU   110     -31.055  19.926  -0.946  1.00157.77           N
ATOM    862  CA  LEU   110     -31.527  21.156  -1.517  1.00157.77           C
ATOM    863  CB  LEU   110     -32.998  21.042  -1.956  1.00157.77           C
ATOM    864  CG  LEU   110     -33.600  22.331  -2.543  1.00157.77           C
ATOM    865  CD1 LEU   110     -32.952  22.712  -3.882  1.00157.77           C
ATOM    866  CD2 LEU   110     -35.128  22.228  -2.631  1.00157.77           C
ATOM    867  C   LEU   110     -31.465  22.232  -0.484  1.00157.77           C
ATOM    868  O   LEU   110     -31.080  23.363  -0.774  1.00157.77           O
ATOM    869  N   GLU   111     -31.847  21.911   0.763  1.00107.74           N
ATOM    870  CA  GLU   111     -31.864  22.931   1.764  1.00107.74           C
ATOM    871  CB  GLU   111     -32.378  22.430   3.124  1.00107.74           C
ATOM    872  CG  GLU   111     -32.553  23.545   4.156  1.00107.74           C
ATOM    873  CD  GLU   111     -33.062  22.920   5.448  1.00107.74           C
ATOM    874  OE1 GLU   111     -32.398  21.972   5.946  1.00107.74           O
ATOM    875  OE2 GLU   111     -34.122  23.379   5.951  1.00107.74           O
ATOM    876  C   GLU   111     -30.476  23.444   1.974  1.00107.74           C
ATOM    877  O   GLU   111     -30.260  24.651   1.938  1.00107.74           O
ATOM    878  N   ALA   112     -29.498  22.534   2.153  1.00 50.43           N
ATOM    879  CA  ALA   112     -28.135  22.897   2.427  1.00 50.43           C
ATOM    880  CB  ALA   112     -27.228  21.674   2.655  1.00 50.43           C
ATOM    881  C   ALA   112     -27.571  23.659   1.267  1.00 50.43           C
ATOM    882  O   ALA   112     -26.854  24.639   1.463  1.00 50.43           O
ATOM    883  N   PHE   113     -27.869  23.228   0.025  1.00121.89           N
ATOM    884  CA  PHE   113     -27.353  23.923  -1.121  1.00121.89           C
ATOM    885  CB  PHE   113     -27.694  23.273  -2.479  1.00121.89           C
ATOM    886  CG  PHE   113     -26.770  22.127  -2.730  1.00121.89           C
ATOM    887  CD1 PHE   113     -27.075  20.853  -2.312  1.00121.89           C
ATOM    888  CD2 PHE   113     -25.585  22.334  -3.397  1.00121.89           C
ATOM    889  CE1 PHE   113     -26.216  19.806  -2.552  1.00121.89           C
ATOM    890  CE2 PHE   113     -24.720  21.292  -3.641  1.00121.89           C
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ATOM    891  CZ  PHE   113     -25.035  20.024  -3.218  1.00121.89           C
ATOM    892  C   PHE   113     -27.912  25.308  -1.139  1.00121.89           C
ATOM    893  O   PHE   113     -27.187  26.270  -1.383  1.00121.89           O
ATOM    894  N   LEU   114     -29.223  25.454  -0.878  1.00150.44           N
ATOM    895  CA  LEU   114     -29.790  26.770  -0.894  1.00150.44           C
ATOM    896  CB  LEU   114     -31.306  26.825  -0.695  1.00150.44           C
ATOM    897  CG  LEU   114     -32.092  26.649  -1.995  1.00150.44           C
ATOM    898  CD1 LEU   114     -31.679  27.708  -3.027  1.00150.44           C
ATOM    899  CD2 LEU   114     -32.085  25.216  -2.523  1.00150.44           C
ATOM    900  C   LEU   114     -29.164  27.624   0.159  1.00150.44           C
ATOM    901  O   LEU   114     -28.907  28.802  -0.076  1.00150.44           O
ATOM    902  N   LEU   115     -28.898  27.081   1.357  1.00156.59           N
ATOM    903  CA  LEU   115     -28.285  27.919   2.347  1.00156.59           C
ATOM    904  CB  LEU   115     -28.033  27.237   3.708  1.00156.59           C
ATOM    905  CG  LEU   115     -29.256  27.169   4.650  1.00156.59           C
ATOM    906  CD1 LEU   115     -30.389  26.286   4.124  1.00156.59           C
ATOM    907  CD2 LEU   115     -28.830  26.762   6.066  1.00156.59           C
ATOM    908  C   LEU   115     -26.962  28.388   1.817  1.00156.59           C
ATOM    909  O   LEU   115     -26.557  29.524   2.053  1.00156.59           O
ATOM    910  N   ALA   116     -26.237  27.524   1.087  1.00 74.29           N
ATOM    911  CA  ALA   116     -24.959  27.918   0.569  1.00 74.29           C
ATOM    912  CB  ALA   116     -24.241  26.786  -0.186  1.00 74.29           C
ATOM    913  C   ALA   116     -25.140  29.053  -0.393  1.00 74.29           C
ATOM    914  O   ALA   116     -24.352  29.998  -0.399  1.00 74.29           O
ATOM    915  N   VAL   117     -26.188  28.993  -1.238  1.00218.34           N
ATOM    916  CA  VAL   117     -26.371  30.021  -2.221  1.00218.34           C
ATOM    917  CB  VAL   117     -27.495  29.765  -3.191  1.00218.34           C
ATOM    918  CG1 VAL   117     -28.858  30.016  -2.519  1.00218.34           C
ATOM    919  CG2 VAL   117     -27.245  30.645  -4.425  1.00218.34           C
ATOM    920  C   VAL   117     -26.636  31.315  -1.527  1.00218.34           C
ATOM    921  O   VAL   117     -26.172  32.366  -1.966  1.00218.34           O
ATOM    922  N   MET   118     -27.403  31.276  -0.422  1.00231.56           N
ATOM    923  CA  MET   118     -27.707  32.498   0.252  1.00231.56           C
ATOM    924  CB  MET   118     -28.756  32.366   1.373  1.00231.56           C
ATOM    925  CG  MET   118     -28.363  31.514   2.577  1.00231.56           C
ATOM    926  SD  MET   118     -29.665  31.419   3.843  1.00231.56           S
ATOM    927  CE  MET   118     -28.822  30.172   4.856  1.00231.56           C
ATOM    928  C   MET   118     -26.439  33.089   0.782  1.00231.56           C
ATOM    929  O   MET   118     -26.237  34.298   0.700  1.00231.56           O
ATOM    930  N   ALA   119     -25.527  32.250   1.308  1.00 92.96           N
ATOM    931  CA  ALA   119     -24.305  32.778   1.841  1.00 92.96           C
ATOM    932  CB  ALA   119     -23.385  31.690   2.418  1.00 92.96           C
ATOM    933  C   ALA   119     -23.561  33.460   0.732  1.00 92.96           C
ATOM    934  O   ALA   119     -23.023  34.550   0.916  1.00 92.96           O
ATOM    935  N   TYR   120     -23.521  32.831  -0.459  1.00263.66           N
ATOM    936  CA  TYR   120     -22.803  33.368  -1.583  1.00263.66           C
ATOM    937  CB  TYR   120     -22.823  32.419  -2.795  1.00263.66           C
ATOM    938  CG  TYR   120     -22.134  33.104  -3.924  1.00263.66           C
ATOM    939  CD1 TYR   120     -20.764  33.063  -4.042  1.00263.66           C
ATOM    940  CD2 TYR   120     -22.863  33.789  -4.870  1.00263.66           C
ATOM    941  CE1 TYR   120     -20.132  33.695  -5.087  1.00263.66           C
ATOM    942  CE2 TYR   120     -22.237  34.423  -5.916  1.00263.66           C
ATOM    943  CZ  TYR   120     -20.869  34.376  -6.027  1.00263.66           C
ATOM    944  OH  TYR   120     -20.224  35.026  -7.100  1.00263.66           O
ATOM    945  C   TYR   120     -23.420  34.659  -2.027  1.00263.66           C
ATOM    946  O   TYR   120     -22.719  35.647  -2.237  1.00263.66           O
ATOM    947  N   ASP   121     -24.759  34.691  -2.169  1.00246.91           N
ATOM    948  CA  ASP   121     -25.415  35.871  -2.648  1.00246.91           C
ATOM    949  CB  ASP   121     -26.930  35.693  -2.814  1.00246.91           C
ATOM    950  CG  ASP   121     -27.469  36.947  -3.483  1.00246.91           C
ATOM    951  OD1 ASP   121     -26.642  37.791  -3.919  1.00246.91           O
ATOM    952  OD2 ASP   121     -28.717  37.082  -3.561  1.00246.91           O
ATOM    953  C   ASP   121     -25.204  36.968  -1.656  1.00246.91           C
ATOM    954  O   ASP   121     -24.975  38.116  -2.032  1.00246.91           O
ATOM    955  N   CYS   122     -25.266  36.632  -0.355  1.00146.24           N
ATOM    956  CA  CYS   122     -25.116  37.603   0.689  1.00146.24           C
ATOM    957  CB  CYS   122     -25.252  37.003   2.099  1.00146.24           C
ATOM    958  SG  CYS   122     -26.938  36.438   2.476  1.00146.24           S
ATOM    959  C   CYS   122     -23.752  38.191   0.597  1.00146.24           C
ATOM    960  O   CYS   122     -23.568  39.387   0.819  1.00146.24           O
ATOM    961  N   TYR   123     -22.749  37.359   0.272  1.00148.13           N
ATOM    962  CA  TYR   123     -21.419  37.880   0.211  1.00148.13           C
ATOM    963  CB  TYR   123     -20.361  36.826  -0.154  1.00148.13           C
ATOM    964  CG  TYR   123     -19.070  37.556  -0.308  1.00148.13           C
ATOM    965  CD1 TYR   123     -18.285  37.822   0.789  1.00148.13           C
ATOM    966  CD2 TYR   123     -18.648  37.978  -1.550  1.00148.13           C
ATOM    967  CE1 TYR   123     -17.095  38.496   0.650  1.00148.13           C
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ATOM    968  CE2 TYR   123     -17.459  38.653  -1.695  1.00148.13           C
ATOM    969  CZ  TYR   123     -16.680  38.910  -0.592  1.00148.13           C
ATOM    970  OH  TYR   123     -15.457  39.600  -0.732  1.00148.13           O
ATOM    971  C   TYR   123     -21.353  38.920  -0.860  1.00148.13           C
ATOM    972  O   TYR   123     -20.823  40.007  -0.638  1.00148.13           O
ATOM    973  N   VAL   124     -21.903  38.629  -2.054  1.00153.78           N
ATOM    974  CA  VAL   124     -21.778  39.578  -3.122  1.00153.78           C
ATOM    975  CB  VAL   124     -22.301  39.114  -4.452  1.00153.78           C
ATOM    976  CG1 VAL   124     -23.835  39.042  -4.407  1.00153.78           C
ATOM    977  CG2 VAL   124     -21.767  40.085  -5.520  1.00153.78           C
ATOM    978  C   VAL   124     -22.507  40.836  -2.768  1.00153.78           C
ATOM    979  O   VAL   124     -22.035  41.932  -3.063  1.00153.78           O
ATOM    980  N   ALA   125     -23.688  40.711  -2.133  1.00103.61           N
ATOM    981  CA  ALA   125     -24.481  41.865  -1.819  1.00103.61           C
ATOM    982  CB  ALA   125     -25.824  41.503  -1.157  1.00103.61           C
ATOM    983  C   ALA   125     -23.751  42.747  -0.860  1.00103.61           C
ATOM    984  O   ALA   125     -23.710  43.964  -1.032  1.00103.61           O
ATOM    985  N   ILE   126     -23.149  42.149   0.182  1.00192.34           N
ATOM    986  CA  ILE   126     -22.475  42.912   1.193  1.00192.34           C
ATOM    987  CB  ILE   126     -22.046  42.065   2.364  1.00192.34           C
ATOM    988  CG2 ILE   126     -20.987  41.056   1.895  1.00192.34           C
ATOM    989  CG1 ILE   126     -21.586  42.951   3.530  1.00192.34           C
ATOM    990  CD1 ILE   126     -22.727  43.689   4.223  1.00192.34           C
ATOM    991  C   ILE   126     -21.262  43.590   0.621  1.00192.34           C
ATOM    992  O   ILE   126     -20.972  44.739   0.946  1.00192.34           O
ATOM    993  N   CYS   127     -20.486  42.871  -0.207  1.00149.40           N
ATOM    994  CA  CYS   127     -19.272  43.386  -0.774  1.00149.40           C
ATOM    995  CB  CYS   127     -18.410  42.271  -1.377  1.00149.40           C
ATOM    996  SG  CYS   127     -16.773  42.875  -1.860  1.00149.40           S
ATOM    997  C   CYS   127     -19.542  44.405  -1.845  1.00149.40           C
ATOM    998  O   CYS   127     -18.782  45.354  -2.022  1.00149.40           O
ATOM    999  N   HIS   128     -20.648  44.227  -2.584  1.00148.34           N
ATOM   1000  CA  HIS   128     -20.991  44.983  -3.756  1.00148.34           C
ATOM   1001  ND1 HIS   128     -21.914  44.730  -6.810  1.00148.34           N
ATOM   1002  CG  HIS   128     -22.685  44.946  -5.691  1.00148.34           C
ATOM   1003  CB  HIS   128     -22.338  44.489  -4.313  1.00148.34           C
ATOM   1004  NE2 HIS   128     -23.741  45.798  -7.491  1.00148.34           N
ATOM   1005  CD2 HIS   128     -23.795  45.598  -6.125  1.00148.34           C
ATOM   1006  CE1 HIS   128     -22.593  45.260  -7.859  1.00148.34           C
ATOM   1007  C   HIS   128     -21.033  46.459  -3.479  1.00148.34           C
ATOM   1008  O   HIS   128     -21.354  46.926  -2.387  1.00148.34           O
ATOM   1009  N   PRO   129     -20.641  47.188  -4.498  1.00292.17           N
ATOM   1010  CA  PRO   129     -20.597  48.627  -4.486  1.00292.17           C
ATOM   1011  CD  PRO   129     -19.869  46.609  -5.583  1.00292.17           C
ATOM   1012  CB  PRO   129     -20.029  49.027  -5.845  1.00292.17           C
ATOM   1013  CG  PRO   129     -19.188  47.805  -6.267  1.00292.17           C
ATOM   1014  C   PRO   129     -21.960  49.165  -4.212  1.00292.17           C
ATOM   1015  O   PRO   129     -22.080  50.148  -3.482  1.00292.17           O
ATOM   1016  N   LEU   130     -22.999  48.553  -4.810  1.00187.08           N
ATOM   1017  CA  LEU   130     -24.338  48.919  -4.469  1.00187.08           C
ATOM   1018  CB  LEU   130     -25.356  48.706  -5.604  1.00187.08           C
ATOM   1019  CG  LEU   130     -25.113  49.604  -6.828  1.00187.08           C
ATOM   1020  CD1 LEU   130     -26.160  49.350  -7.925  1.00187.08           C
ATOM   1021  CD2 LEU   130     -25.016  51.085  -6.428  1.00187.08           C
ATOM   1022  C   LEU   130     -24.638  47.930  -3.408  1.00187.08           C
ATOM   1023  O   LEU   130     -24.999  46.791  -3.698  1.00187.08           O
ATOM   1024  N   HIS   131     -24.494  48.356  -2.144  1.00283.79           N
ATOM   1025  CA  HIS   131     -24.544  47.441  -1.048  1.00283.79           C
ATOM   1026  ND1 HIS   131     -24.367  50.562   0.079  1.00283.79           N
ATOM   1027  CG  HIS   131     -24.705  49.346   0.628  1.00283.79           C
ATOM   1028  CB  HIS   131     -24.036  48.053   0.271  1.00283.79           C
ATOM   1029  NE2 HIS   131     -26.006  50.955   1.529  1.00283.79           N
ATOM   1030  CD2 HIS   131     -25.708  49.604   1.512  1.00283.79           C
ATOM   1031  CE1 HIS   131     -25.174  51.490   0.653  1.00283.79           C
ATOM   1032  C   HIS   131     -25.909  46.885  -0.817  1.00283.79           C
ATOM   1033  O   HIS   131     -26.928  47.559  -0.956  1.00283.79           O
ATOM   1034  N   TYR   132     -25.908  45.587  -0.463  1.00319.82           N
ATOM   1035  CA  TYR   132     -27.017  44.775  -0.069  1.00319.82           C
ATOM   1036  CB  TYR   132     -27.826  45.393   1.080  1.00319.82           C
ATOM   1037  CG  TYR   132     -26.884  45.487   2.229  1.00319.82           C
ATOM   1038  CD1 TYR   132     -26.560  44.358   2.941  1.00319.82           C
ATOM   1039  CD2 TYR   132     -26.293  46.682   2.571  1.00319.82           C
ATOM   1040  CE1 TYR   132     -25.689  44.424   4.001  1.00319.82           C
ATOM   1041  CE2 TYR   132     -25.420  46.754   3.630  1.00319.82           C
ATOM   1042  CZ  TYR   132     -25.120  45.624   4.350  1.00319.82           C
ATOM   1043  OH  TYR   132     -24.225  45.698   5.439  1.00319.82           O
ATOM   1044  C   TYR   132     -27.935  44.501  -1.209  1.00319.82           C
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ATOM   1045  O   TYR   132     -28.870  43.712  -1.074  1.00319.82           O
ATOM   1046  N   ILE   133     -27.670  45.079  -2.389  1.00 83.12           N
ATOM   1047  CA  ILE   133     -28.527  44.721  -3.470  1.00 83.12           C
ATOM   1048  CB  ILE   133     -28.598  45.748  -4.560  1.00 83.12           C
ATOM   1049  CG2 ILE   133     -29.417  45.151  -5.718  1.00 83.12           C
ATOM   1050  CG1 ILE   133     -29.171  47.066  -4.014  1.00 83.12           C
ATOM   1051  CD1 ILE   133     -29.005  48.243  -4.974  1.00 83.12           C
ATOM   1052  C   ILE   133     -27.901  43.500  -4.035  1.00 83.12           C
ATOM   1053  O   ILE   133     -26.706  43.483  -4.325  1.00 83.12           O
ATOM   1054  N   LEU   134     -28.689  42.423  -4.171  1.00105.63           N
ATOM   1055  CA  LEU   134     -28.108  41.236  -4.701  1.00105.63           C
ATOM   1056  CB  LEU   134     -29.044  40.020  -4.640  1.00105.63           C
ATOM   1057  CG  LEU   134     -29.548  39.723  -3.213  1.00105.63           C
ATOM   1058  CD1 LEU   134     -28.383  39.465  -2.244  1.00105.63           C
ATOM   1059  CD2 LEU   134     -30.508  40.817  -2.719  1.00105.63           C
ATOM   1060  C   LEU   134     -27.818  41.552  -6.128  1.00105.63           C
ATOM   1061  O   LEU   134     -28.536  42.324  -6.761  1.00105.63           O
ATOM   1062  N   ILE   135     -26.719  40.994  -6.660  1.00134.92           N
ATOM   1063  CA  ILE   135     -26.367  41.252  -8.023  1.00134.92           C
ATOM   1064  CB  ILE   135     -25.066  40.617  -8.431  1.00134.92           C
ATOM   1065  CG2 ILE   135     -25.204  39.089  -8.311  1.00134.92           C
ATOM   1066  CG1 ILE   135     -24.654  41.106  -9.829  1.00134.92           C
ATOM   1067  CD1 ILE   135     -24.294  42.590  -9.876  1.00134.92           C
ATOM   1068  C   ILE   135     -27.457  40.688  -8.873  1.00134.92           C
ATOM   1069  O   ILE   135     -27.829  41.256  -9.899  1.00134.92           O
ATOM   1070  N   MET   136     -27.989  39.532  -8.442  1.00123.17           N
ATOM   1071  CA  MET   136     -28.983  38.783  -9.146  1.00123.17           C
ATOM   1072  CB  MET   136     -29.159  37.385  -8.536  1.00123.17           C
ATOM   1073  CG  MET   136     -29.614  37.442  -7.076  1.00123.17           C
ATOM   1074  SD  MET   136     -29.326  35.918  -6.129  1.00123.17           S
ATOM   1075  CE  MET   136     -30.504  34.919  -7.078  1.00123.17           C
ATOM   1076  C   MET   136     -30.311  39.473  -9.104  1.00123.17           C
ATOM   1077  O   MET   136     -30.703  40.080  -8.109  1.00123.17           O
ATOM   1078  N   SER   137     -31.034  39.405 -10.236  1.00 77.34           N
ATOM   1079  CA  SER   137     -32.355  39.946 -10.336  1.00 77.34           C
ATOM   1080  CB  SER   137     -32.716  40.397 -11.761  1.00 77.34           C
ATOM   1081  OG  SER   137     -32.701  39.282 -12.641  1.00 77.34           O
ATOM   1082  C   SER   137     -33.275  38.828  -9.978  1.00 77.34           C
ATOM   1083  O   SER   137     -32.831  37.730  -9.645  1.00 77.34           O
ATOM   1084  N   PRO   138     -34.551  39.075 -10.004  1.00265.88           N
ATOM   1085  CA  PRO   138     -35.456  37.988  -9.793  1.00265.88           C
ATOM   1086  CD  PRO   138     -35.092  40.336  -9.523  1.00265.88           C
ATOM   1087  CB  PRO   138     -36.821  38.624  -9.558  1.00265.88           C
ATOM   1088  CG  PRO   138     -36.473  39.990  -8.938  1.00265.88           C
ATOM   1089  C   PRO   138     -35.327  37.209 -11.054  1.00265.88           C
ATOM   1090  O   PRO   138     -34.762  37.728 -12.004  1.00265.88           O
ATOM   1091  N   GLY   139     -35.729  35.942 -11.107  1.00393.48           N
ATOM   1092  CA  GLY   139     -35.566  35.275 -12.363  1.00393.48           C
ATOM   1093  C   GLY   139     -34.190  34.704 -12.321  1.00393.48           C
ATOM   1094  O   GLY   139     -33.961  33.540 -12.639  1.00393.48           O
ATOM   1095  N   LEU   140     -33.219  35.544 -11.930  1.00128.06           N
ATOM   1096  CA  LEU   140     -31.910  35.022 -11.720  1.00128.06           C
ATOM   1097  CB  LEU   140     -30.865  36.109 -11.423  1.00128.06           C
ATOM   1098  CG  LEU   140     -30.647  37.072 -12.606  1.00128.06           C
ATOM   1099  CD1 LEU   140     -29.574  38.126 -12.291  1.00128.06           C
ATOM   1100  CD2 LEU   140     -30.349  36.303 -13.903  1.00128.06           C
ATOM   1101  C   LEU   140     -32.057  34.177 -10.503  1.00128.06           C
ATOM   1102  O   LEU   140     -31.559  33.056 -10.432  1.00128.06           O
ATOM   1103  N   CYS   141     -32.821  34.705  -9.527  1.00104.23           N
ATOM   1104  CA  CYS   141     -33.041  34.032  -8.283  1.00104.23           C
ATOM   1105  CB  CYS   141     -33.976  34.831  -7.361  1.00104.23           C
ATOM   1106  SG  CYS   141     -35.567  35.201  -8.158  1.00104.23           S
ATOM   1107  C   CYS   141     -33.692  32.721  -8.586  1.00104.23           C
ATOM   1108  O   CYS   141     -33.317  31.690  -8.027  1.00104.23           O
ATOM   1109  N   ILE   142     -34.686  32.723  -9.493  1.00125.02           N
ATOM   1110  CA  ILE   142     -35.360  31.500  -9.818  1.00125.02           C
ATOM   1111  CB  ILE   142     -36.615  31.684 -10.628  1.00125.02           C
ATOM   1112  CG2 ILE   142     -37.622  32.451  -9.756  1.00125.02           C
ATOM   1113  CG1 ILE   142     -36.335  32.350 -11.977  1.00125.02           C
ATOM   1114  CD1 ILE   142     -37.551  32.363 -12.899  1.00125.02           C
ATOM   1115  C   ILE   142     -34.410  30.572 -10.501  1.00125.02           C
ATOM   1116  O   ILE   142     -34.475  29.358 -10.311  1.00125.02           O
ATOM   1117  N   PHE   143     -33.510  31.120 -11.335  1.00107.63           N
ATOM   1118  CA  PHE   143     -32.587  30.281 -12.044  1.00107.63           C
ATOM   1119  CB  PHE   143     -31.685  31.072 -13.008  1.00107.63           C
ATOM   1120  CG  PHE   143     -31.001  30.081 -13.886  1.00107.63           C
ATOM   1121  CD1 PHE   143     -29.845  29.453 -13.483  1.00107.63           C
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ATOM   1122  CD2 PHE   143     -31.527  29.773 -15.119  1.00107.63           C
ATOM   1123  CE1 PHE   143     -29.222  28.538 -14.300  1.00107.63           C
ATOM   1124  CE2 PHE   143     -30.909  28.859 -15.940  1.00107.63           C
ATOM   1125  CZ  PHE   143     -29.753  28.238 -15.532  1.00107.63           C
ATOM   1126  C   PHE   143     -31.705  29.577 -11.055  1.00107.63           C
ATOM   1127  O   PHE   143     -31.490  28.371 -11.155  1.00107.63           O
ATOM   1128  N   LEU   144     -31.176  30.311 -10.054  1.00124.90           N
ATOM   1129  CA  LEU   144     -30.304  29.697  -9.091  1.00124.90           C
ATOM   1130  CB  LEU   144     -29.700  30.682  -8.074  1.00124.90           C
ATOM   1131  CG  LEU   144     -28.545  31.526  -8.644  1.00124.90           C
ATOM   1132  CD1 LEU   144     -27.315  30.650  -8.931  1.00124.90           C
ATOM   1133  CD2 LEU   144     -28.977  32.339  -9.871  1.00124.90           C
ATOM   1134  C   LEU   144     -31.061  28.657  -8.340  1.00124.90           C
ATOM   1135  O   LEU   144     -30.539  27.581  -8.048  1.00124.90           O
ATOM   1136  N   VAL   145     -32.327  28.949  -8.006  1.00 53.16           N
ATOM   1137  CA  VAL   145     -33.093  27.986  -7.282  1.00 53.16           C
ATOM   1138  CB  VAL   145     -34.487  28.453  -6.992  1.00 53.16           C
ATOM   1139  CG1 VAL   145     -35.270  27.283  -6.375  1.00 53.16           C
ATOM   1140  CG2 VAL   145     -34.414  29.695  -6.088  1.00 53.16           C
ATOM   1141  C   VAL   145     -33.205  26.743  -8.112  1.00 53.16           C
ATOM   1142  O   VAL   145     -33.022  25.637  -7.608  1.00 53.16           O
ATOM   1143  N   SER   146     -33.487  26.890  -9.421  1.00 39.25           N
ATOM   1144  CA  SER   146     -33.678  25.735 -10.255  1.00 39.25           C
ATOM   1145  CB  SER   146     -34.064  26.079 -11.707  1.00 39.25           C
ATOM   1146  OG  SER   146     -32.962  26.654 -12.392  1.00 39.25           O
ATOM   1147  C   SER   146     -32.405  24.953 -10.305  1.00 39.25           C
ATOM   1148  O   SER   146     -32.421  23.723 -10.303  1.00 39.25           O
ATOM   1149  N   ALA   147     -31.260  25.656 -10.332  1.00 55.37           N
ATOM   1150  CA  ALA   147     -29.992  24.993 -10.429  1.00 55.37           C
ATOM   1151  CB  ALA   147     -28.810  25.978 -10.471  1.00 55.37           C
ATOM   1152  C   ALA   147     -29.819  24.133  -9.224  1.00 55.37           C
ATOM   1153  O   ALA   147     -29.299  23.022  -9.305  1.00 55.37           O
ATOM   1154  N   SER   148     -30.264  24.636  -8.064  1.00107.41           N
ATOM   1155  CA  SER   148     -30.101  23.927  -6.832  1.00107.41           C
ATOM   1156  CB  SER   148     -30.712  24.701  -5.657  1.00107.41           C
ATOM   1157  OG  SER   148     -30.531  23.969  -4.460  1.00107.41           O
ATOM   1158  C   SER   148     -30.781  22.600  -6.908  1.00107.41           C
ATOM   1159  O   SER   148     -30.250  21.588  -6.451  1.00107.41           O
ATOM   1160  N   TRP   149     -31.987  22.570  -7.487  1.00 80.85           N
ATOM   1161  CA  TRP   149     -32.737  21.357  -7.562  1.00 80.85           C
ATOM   1162  CB  TRP   149     -34.177  21.586  -8.047  1.00 80.85           C
ATOM   1163  CG  TRP   149     -35.027  22.263  -6.997  1.00 80.85           C
ATOM   1164  CD2 TRP   149     -35.952  21.562  -6.152  1.00 80.85           C
ATOM   1165  CD1 TRP   149     -35.101  23.579  -6.641  1.00 80.85           C
ATOM   1166  NE1 TRP   149     -36.015  23.740  -5.625  1.00 80.85           N
ATOM   1167  CE2 TRP   149     -36.547  22.506  -5.317  1.00 80.85           C
ATOM   1168  CE3 TRP   149     -36.282  20.239  -6.086  1.00 80.85           C
ATOM   1169  CZ2 TRP   149     -37.488  22.139  -4.397  1.00 80.85           C
ATOM   1170  CZ3 TRP   149     -37.225  19.870  -5.153  1.00 80.85           C
ATOM   1171  CH2 TRP   149     -37.815  20.803  -4.326  1.00 80.85           C
ATOM   1172  C   TRP   149     -32.059  20.351  -8.442  1.00 80.85           C
ATOM   1173  O   TRP   149     -32.024  19.165  -8.118  1.00 80.85           O
ATOM   1174  N   ILE   150     -31.495  20.782  -9.583  1.00 99.90           N
ATOM   1175  CA  ILE   150     -30.899  19.810 -10.453  1.00 99.90           C
ATOM   1176  CB  ILE   150     -30.387  20.387 -11.744  1.00 99.90           C
ATOM   1177  CG2 ILE   150     -31.587  20.995 -12.485  1.00 99.90           C
ATOM   1178  CG1 ILE   150     -29.247  21.389 -11.507  1.00 99.90           C
ATOM   1179  CD1 ILE   150     -28.509  21.779 -12.788  1.00 99.90           C
ATOM   1180  C   ILE   150     -29.750  19.170  -9.748  1.00 99.90           C
ATOM   1181  O   ILE   150     -29.591  17.950  -9.772  1.00 99.90           O
ATOM   1182  N   MET   151     -28.927  19.987  -9.074  1.00163.86           N
ATOM   1183  CA  MET   151     -27.763  19.464  -8.431  1.00163.86           C
ATOM   1184  CB  MET   151     -26.952  20.569  -7.730  1.00163.86           C
ATOM   1185  CG  MET   151     -25.627  20.089  -7.141  1.00163.86           C
ATOM   1186  SD  MET   151     -24.369  19.664  -8.383  1.00163.86           S
ATOM   1187  CE  MET   151     -23.038  19.396  -7.176  1.00163.86           C
ATOM   1188  C   MET   151     -28.184  18.473  -7.392  1.00163.86           C
ATOM   1189  O   MET   151     -27.645  17.370  -7.325  1.00163.86           O
ATOM   1190  N   ASN   152     -29.194  18.821  -6.574  1.00117.46           N
ATOM   1191  CA  ASN   152     -29.577  17.933  -5.513  1.00117.46           C
ATOM   1192  CB  ASN   152     -30.584  18.517  -4.496  1.00117.46           C
ATOM   1193  CG  ASN   152     -31.914  18.863  -5.148  1.00117.46           C
ATOM   1194  OD1 ASN   152     -32.586  18.022  -5.741  1.00117.46           O
ATOM   1195  ND2 ASN   152     -32.326  20.149  -5.000  1.00117.46           N
ATOM   1196  C   ASN   152     -30.129  16.665  -6.079  1.00117.46           C
ATOM   1197  O   ASN   152     -29.926  15.590  -5.516  1.00117.46           O
ATOM   1198  N   ALA   153     -30.846  16.752  -7.212  1.00 46.71           N
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ATOM   1199  CA  ALA   153     -31.458  15.588  -7.781  1.00 46.71           C
ATOM   1200  CB  ALA   153     -32.294  15.904  -9.031  1.00 46.71           C
ATOM   1201  C   ALA   153     -30.398  14.620  -8.181  1.00 46.71           C
ATOM   1202  O   ALA   153     -30.520  13.421  -7.936  1.00 46.71           O
ATOM   1203  N   LEU   154     -29.304  15.119  -8.783  1.00188.11           N
ATOM   1204  CA  LEU   154     -28.319  14.189  -9.241  1.00188.11           C
ATOM   1205  CB  LEU   154     -27.117  14.823  -9.964  1.00188.11           C
ATOM   1206  CG  LEU   154     -27.397  15.168 -11.437  1.00188.11           C
ATOM   1207  CD1 LEU   154     -27.605  13.884 -12.259  1.00188.11           C
ATOM   1208  CD2 LEU   154     -28.557  16.165 -11.585  1.00188.11           C
ATOM   1209  C   LEU   154     -27.793  13.401  -8.092  1.00188.11           C
ATOM   1210  O   LEU   154     -27.669  12.186  -8.205  1.00188.11           O
ATOM   1211  N   HIS   155     -27.495  14.058  -6.955  1.00143.23           N
ATOM   1212  CA  HIS   155     -26.929  13.377  -5.824  1.00143.23           C
ATOM   1213  ND1 HIS   155     -24.249  15.040  -5.852  1.00143.23           N
ATOM   1214  CG  HIS   155     -25.485  15.352  -5.330  1.00143.23           C
ATOM   1215  CB  HIS   155     -26.431  14.348  -4.740  1.00143.23           C
ATOM   1216  NE2 HIS   155     -24.531  17.228  -6.146  1.00143.23           N
ATOM   1217  CD2 HIS   155     -25.639  16.691  -5.517  1.00143.23           C
ATOM   1218  CE1 HIS   155     -23.724  16.199  -6.329  1.00143.23           C
ATOM   1219  C   HIS   155     -27.927  12.431  -5.221  1.00143.23           C
ATOM   1220  O   HIS   155     -27.564  11.344  -4.779  1.00143.23           O
ATOM   1221  N   SER   156     -29.207  12.841  -5.152  1.00173.29           N
ATOM   1222  CA  SER   156     -30.262  12.047  -4.580  1.00173.29           C
ATOM   1223  CB  SER   156     -31.547  12.876  -4.433  1.00173.29           C
ATOM   1224  OG  SER   156     -32.580  12.090  -3.865  1.00173.29           O
ATOM   1225  C   SER   156     -30.571  10.869  -5.459  1.00173.29           C
ATOM   1226  O   SER   156     -30.885   9.781  -4.980  1.00173.29           O
ATOM   1227  N   LEU   157     -30.487  11.056  -6.786  1.00214.00           N
ATOM   1228  CA  LEU   157     -30.839  10.024  -7.722  1.00214.00           C
ATOM   1229  CB  LEU   157     -31.015  10.492  -9.179  1.00214.00           C
ATOM   1230  CG  LEU   157     -32.437  10.992  -9.515  1.00214.00           C
ATOM   1231  CD1 LEU   157     -32.854  12.226  -8.702  1.00214.00           C
ATOM   1232  CD2 LEU   157     -32.594  11.189 -11.029  1.00214.00           C
ATOM   1233  C   LEU   157     -29.940   8.813  -7.722  1.00214.00           C
ATOM   1234  O   LEU   157     -30.420   7.737  -8.067  1.00214.00           O
ATOM   1235  N   LEU   158     -28.643   8.907  -7.350  1.00216.87           N
ATOM   1236  CA  LEU   158     -27.757   7.775  -7.524  1.00216.87           C
ATOM   1237  CB  LEU   158     -26.322   7.961  -6.986  1.00216.87           C
ATOM   1238  CG  LEU   158     -25.494   9.088  -7.636  1.00216.87           C
ATOM   1239  CD1 LEU   158     -25.485   8.988  -9.171  1.00216.87           C
ATOM   1240  CD2 LEU   158     -25.872  10.464  -7.079  1.00216.87           C
ATOM   1241  C   LEU   158     -28.286   6.559  -6.829  1.00216.87           C
ATOM   1242  O   LEU   158     -28.204   5.460  -7.378  1.00216.87           O
ATOM   1243  N   HIS   159     -28.863   6.703  -5.621  1.00221.69           N
ATOM   1244  CA  HIS   159     -29.343   5.524  -4.962  1.00221.69           C
ATOM   1245  ND1 HIS   159     -30.271   7.978  -2.460  1.00221.69           N
ATOM   1246  CG  HIS   159     -30.731   6.948  -3.251  1.00221.69           C
ATOM   1247  CB  HIS   159     -29.923   5.716  -3.542  1.00221.69           C
ATOM   1248  NE2 HIS   159     -32.357   8.496  -3.022  1.00221.69           N
ATOM   1249  CD2 HIS   159     -32.007   7.282  -3.590  1.00221.69           C
ATOM   1250  CE1 HIS   159     -31.284   8.874  -2.351  1.00221.69           C
ATOM   1251  C   HIS   159     -30.371   4.848  -5.810  1.00221.69           C
ATOM   1252  O   HIS   159     -30.420   3.620  -5.841  1.00221.69           O
ATOM   1253  N   THR   160     -31.231   5.606  -6.518  1.00207.08           N
ATOM   1254  CA  THR   160     -32.225   4.937  -7.309  1.00207.08           C
ATOM   1255  CB  THR   160     -33.188   5.866  -7.995  1.00207.08           C
ATOM   1256  OG1 THR   160     -32.531   6.608  -9.010  1.00207.08           O
ATOM   1257  CG2 THR   160     -33.789   6.819  -6.949  1.00207.08           C
ATOM   1258  C   THR   160     -31.547   4.148  -8.387  1.00207.08           C
ATOM   1259  O   THR   160     -31.937   3.018  -8.678  1.00207.08           O
ATOM   1260  N   LEU   161     -30.511   4.732  -9.020  1.00136.44           N
ATOM   1261  CA  LEU   161     -29.881   4.077 -10.130  1.00136.44           C
ATOM   1262  CB  LEU   161     -28.817   4.960 -10.804  1.00136.44           C
ATOM   1263  CG  LEU   161     -29.393   6.274 -11.363  1.00136.44           C
ATOM   1264  CD1 LEU   161     -28.317   7.095 -12.094  1.00136.44           C
ATOM   1265  CD2 LEU   161     -30.639   6.018 -12.227  1.00136.44           C
ATOM   1266  C   LEU   161     -29.217   2.802  -9.712  1.00136.44           C
ATOM   1267  O   LEU   161     -29.478   1.753 -10.290  1.00136.44           O
ATOM   1268  N   LEU   162     -28.343   2.835  -8.683  1.00263.94           N
ATOM   1269  CA  LEU   162     -27.706   1.600  -8.341  1.00263.94           C
ATOM   1270  CB  LEU   162     -26.726   1.095  -9.413  1.00263.94           C
ATOM   1271  CG  LEU   162     -26.049  -0.229  -9.016  1.00263.94           C
ATOM   1272  CD1 LEU   162     -27.080  -1.353  -8.831  1.00263.94           C
ATOM   1273  CD2 LEU   162     -24.927  -0.602  -9.993  1.00263.94           C
ATOM   1274  C   LEU   162     -26.894   1.819  -7.116  1.00263.94           C
ATOM   1275  O   LEU   162     -26.972   1.052  -6.159  1.00263.94           O
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ATOM	1276	N	MET	163	-26.085	2.891	-7.140	1.00217.33	N
ATOM	1277	CA	MET	163	-25.194	3.197	-6.067	1.00217.33	C
ATOM	1278	CB	MET	163	-24.391	4.489	-6.294	1.00217.33	C
ATOM	1279	CG	MET	163	-23.461	4.426	-7.507	1.00217.33	C
ATOM	1280	SD	MET	163	-22.504	5.938	-7.823	1.00217.33	S
ATOM	1281	CE	MET	163	-21.690	5.285	-9.311	1.00217.33	C
ATOM	1282	C	MET	163	-26.016	3.394	-4.854	1.00217.33	C
ATOM	1283	O	MET	163	-27.105	3.957	-4.915	1.00217.33	O
ATOM	1284	N	ASN	164	-25.503	2.908	-3.711	1.00309.13	N
ATOM	1285	CA	ASN	164	-26.192	2.944	-2.460	1.00309.13	C
ATOM	1286	CB	ASN	164	-26.082	4.263	-1.654	1.00309.13	C
ATOM	1287	CG	ASN	164	-26.746	5.443	-2.347	1.00309.13	C
ATOM	1288	OD1	ASN	164	-27.765	5.945	-1.877	1.00309.13	O
ATOM	1289	ND2	ASN	164	-26.136	5.948	-3.452	1.00309.13	N
ATOM	1290	C	ASN	164	-27.603	2.486	-2.651	1.00309.13	C
ATOM	1291	O	ASN	164	-27.971	1.920	-3.682	1.00309.13	O
ATOM	1292	N	SER	165	-28.441	2.634	-1.619	1.00259.29	N
ATOM	1293	CA	SER	165	-29.740	2.110	-1.867	1.00259.29	C
ATOM	1294	CB	SER	165	-29.825	0.596	-1.579	1.00259.29	C
ATOM	1295	OG	SER	165	-31.125	0.094	-1.851	1.00259.29	O
ATOM	1296	C	SER	165	-30.692	2.803	-0.961	1.00259.29	C
ATOM	1297	O	SER	165	-30.306	3.581	-0.087	1.00259.29	O
ATOM	1298	N	LEU	166	-31.982	2.514	-1.189	1.00232.69	N
ATOM	1299	CA	LEU	166	-33.087	3.073	-0.497	1.00232.69	C
ATOM	1300	CB	LEU	166	-34.425	2.577	-1.061	1.00232.69	C
ATOM	1301	CG	LEU	166	-34.603	2.936	-2.548	1.00232.69	C
ATOM	1302	CD1	LEU	166	-34.524	4.459	-2.746	1.00232.69	C
ATOM	1303	CD2	LEU	166	-33.632	2.153	-3.451	1.00232.69	C
ATOM	1304	C	LEU	166	-33.011	2.690	0.942	1.00232.69	C
ATOM	1305	O	LEU	166	-33.332	3.535	1.762	1.00232.69	O
ATOM	1306	N	SER	167	-32.627	1.427	1.271	1.00298.15	N
ATOM	1307	CA	SER	167	-32.423	0.883	2.607	1.00298.15	C
ATOM	1308	CB	SER	167	-31.000	1.143	3.164	1.00298.15	C
ATOM	1309	OG	SER	167	-30.890	0.781	4.532	1.00298.15	O
ATOM	1310	C	SER	167	-33.548	1.248	3.525	1.00298.15	C
ATOM	1311	O	SER	167	-34.531	1.734	3.012	1.00298.15	O
ATOM	1312	N	PHE	168	-33.518	0.940	4.849	1.00446.93	N
ATOM	1313	CA	PHE	168	-34.618	1.188	5.762	1.00446.93	C
ATOM	1314	CB	PHE	168	-35.417	-0.091	6.135	1.00446.93	C
ATOM	1315	CG	PHE	168	-36.760	0.225	6.732	1.00446.93	C
ATOM	1316	CD1	PHE	168	-37.060	1.479	7.210	1.00446.93	C
ATOM	1317	CD2	PHE	168	-37.725	-0.752	6.847	1.00446.93	C
ATOM	1318	CE1	PHE	168	-38.286	1.778	7.754	1.00446.93	C
ATOM	1319	CE2	PHE	168	-38.957	-0.465	7.390	1.00446.93	C
ATOM	1320	CZ	PHE	168	-39.246	0.801	7.840	1.00446.93	C
ATOM	1321	C	PHE	168	-33.981	1.535	7.078	1.00446.93	C
ATOM	1322	O	PHE	168	-32.992	0.918	7.463	1.00446.93	O
ATOM	1323	N	CYS	169	-34.527	2.526	7.806	1.00275.16	N
ATOM	1324	CA	CYS	169	-34.078	2.830	9.129	1.00275.16	C
ATOM	1325	CB	CYS	169	-34.801	4.039	9.746	1.00275.16	C
ATOM	1326	SG	CYS	169	-34.487	5.598	8.873	1.00275.16	S
ATOM	1327	C	CYS	169	-34.470	1.645	9.951	1.00275.16	C
ATOM	1328	O	CYS	169	-33.772	1.248	10.877	1.00275.16	O
ATOM	1329	N	ALA	170	-35.632	1.063	9.615	1.00366.50	N
ATOM	1330	CA	ALA	170	-36.214	-0.068	10.280	1.00366.50	C
ATOM	1331	CB	ALA	170	-37.742	-0.152	10.174	1.00366.50	C
ATOM	1332	C	ALA	170	-35.656	-1.323	9.688	1.00366.50	C
ATOM	1333	O	ALA	170	-34.446	-1.479	9.569	1.00366.50	O
ATOM	1334	N	ASN	171	-36.558	-2.274	9.364	1.00611.39	N
ATOM	1335	CA	ASN	171	-36.241	-3.598	8.892	1.00611.39	C
ATOM	1336	CB	ASN	171	-37.486	-4.455	8.653	1.00611.39	C
ATOM	1337	CG	ASN	171	-37.066	-5.917	8.796	1.00611.39	C
ATOM	1338	OD1	ASN	171	-37.421	-6.768	7.983	1.00611.39	O
ATOM	1339	ND2	ASN	171	-36.288	-6.212	9.873	1.00611.39	N
ATOM	1340	C	ASN	171	-35.419	-3.573	7.606	1.00611.39	C
ATOM	1341	O	ASN	171	-34.865	-2.545	7.235	1.00611.39	O
ATOM	1342	N	HIS	172	-35.325	-4.743	6.911	1.00251.78	N
ATOM	1343	CA	HIS	172	-34.457	-5.109	5.800	1.00251.78	C
ATOM	1344	ND1	HIS	172	-32.189	-7.796	5.715	1.00251.78	N
ATOM	1345	CG	HIS	172	-33.234	-7.264	4.991	1.00251.78	C
ATOM	1346	CB	HIS	172	-34.443	-6.644	5.635	1.00251.78	C
ATOM	1347	NE2	HIS	172	-31.714	-8.138	3.572	1.00251.78	N
ATOM	1348	CD2	HIS	172	-32.923	-7.479	3.684	1.00251.78	C
ATOM	1349	CE1	HIS	172	-31.308	-8.304	4.817	1.00251.78	C
ATOM	1350	C	HIS	172	-34.814	-4.498	4.454	1.00251.78	C
ATOM	1351	O	HIS	172	-35.977	-4.265	4.127	1.00251.78	O
ATOM	1352	N	GLU	173	-33.751	-4.193	3.661	1.00188.89	N

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ATOM   1353  CA  GLU   173     -33.755  -3.627   2.327  1.00188.89           C
ATOM   1354  CB  GLU   173     -32.389  -3.055   1.916  1.00188.89           C
ATOM   1355  CG  GLU   173     -32.368  -2.226   0.635  1.00188.89           C
ATOM   1356  CD  GLU   173     -31.857  -3.071  -0.519  1.00188.89           C
ATOM   1357  OE1 GLU   173     -32.205  -4.278  -0.594  1.00188.89           O
ATOM   1358  OE2 GLU   173     -31.097  -2.508  -1.352  1.00188.89           O
ATOM   1359  C   GLU   173     -34.169  -4.599   1.291  1.00188.89           C
ATOM   1360  O   GLU   173     -34.840  -4.229   0.328  1.00188.89           O
ATOM   1361  N   ILE   174     -33.760  -5.867   1.448  1.00 64.24           N
ATOM   1362  CA  ILE   174     -34.105  -6.825   0.444  1.00 64.24           C
ATOM   1363  CB  ILE   174     -33.633  -8.217   0.727  1.00 64.24           C
ATOM   1364  CG2 ILE   174     -34.292  -9.142  -0.307  1.00 64.24           C
ATOM   1365  CG1 ILE   174     -32.101  -8.275   0.710  1.00 64.24           C
ATOM   1366  CD1 ILE   174     -31.523  -9.615   1.163  1.00 64.24           C
ATOM   1367  C   ILE   174     -35.587  -6.858   0.369  1.00 64.24           C
ATOM   1368  O   ILE   174     -36.156  -6.914  -0.719  1.00 64.24           O
ATOM   1369  N   PRO   175     -36.249  -6.796   1.480  1.00114.78           N
ATOM   1370  CA  PRO   175     -37.664  -6.801   1.381  1.00114.78           C
ATOM   1371  CD  PRO   175     -35.823  -7.461   2.697  1.00114.78           C
ATOM   1372  CB  PRO   175     -38.203  -7.112   2.760  1.00114.78           C
ATOM   1373  CG  PRO   175     -36.963  -7.139   3.670  1.00114.78           C
ATOM   1374  C   PRO   175     -38.154  -5.534   0.818  1.00114.78           C
ATOM   1375  O   PRO   175     -37.442  -4.536   0.845  1.00114.78           O
ATOM   1376  N   HIS   176     -39.383  -5.579   0.310  1.00113.43           N
ATOM   1377  CA  HIS   176     -40.018  -4.494  -0.344  1.00113.43           C
ATOM   1378  ND1 HIS   176     -42.622  -6.564  -2.243  1.00113.43           N
ATOM   1379  CG  HIS   176     -41.478  -5.906  -1.850  1.00113.43           C
ATOM   1380  CB  HIS   176     -41.446  -4.841  -0.793  1.00113.43           C
ATOM   1381  NE2 HIS   176     -40.964  -7.377  -3.483  1.00113.43           N
ATOM   1382  CD2 HIS   176     -40.475  -6.415  -2.616  1.00113.43           C
ATOM   1383  CE1 HIS   176     -42.258  -7.432  -3.221  1.00113.43           C
ATOM   1384  C   HIS   176     -40.101  -3.338   0.587  1.00113.43           C
ATOM   1385  O   HIS   176     -39.843  -2.212   0.173  1.00113.43           O
ATOM   1386  N   PHE   177     -40.458  -3.517   1.873  1.00350.76           N
ATOM   1387  CA  PHE   177     -40.472  -2.230   2.472  1.00350.76           C
ATOM   1388  CB  PHE   177     -41.746  -1.699   3.079  1.00350.76           C
ATOM   1389  CG  PHE   177     -41.278  -0.322   3.427  1.00350.76           C
ATOM   1390  CD1 PHE   177     -41.020   0.567   2.406  1.00350.76           C
ATOM   1391  CD2 PHE   177     -41.098   0.102   4.727  1.00350.76           C
ATOM   1392  CE1 PHE   177     -40.586   1.845   2.668  1.00350.76           C
ATOM   1393  CE2 PHE   177     -40.662   1.376   4.985  1.00350.76           C
ATOM   1394  CZ  PHE   177     -40.403   2.255   3.965  1.00350.76           C
ATOM   1395  C   PHE   177     -39.476  -2.033   3.535  1.00350.76           C
ATOM   1396  O   PHE   177     -39.652  -2.453   4.678  1.00350.76           O
ATOM   1397  N   PHE   178     -38.469  -1.241   3.153  1.00283.03           N
ATOM   1398  CA  PHE   178     -37.367  -0.785   3.929  1.00283.03           C
ATOM   1399  CB  PHE   178     -36.107  -1.594   3.538  1.00283.03           C
ATOM   1400  CG  PHE   178     -35.848  -1.395   2.068  1.00283.03           C
ATOM   1401  CD1 PHE   178     -36.657  -1.958   1.115  1.00283.03           C
ATOM   1402  CD2 PHE   178     -34.839  -0.582   1.613  1.00283.03           C
ATOM   1403  CE1 PHE   178     -36.448  -1.770  -0.231  1.00283.03           C
ATOM   1404  CE2 PHE   178     -34.613  -0.375   0.271  1.00283.03           C
ATOM   1405  CZ  PHE   178     -35.416  -0.977  -0.663  1.00283.03           C
ATOM   1406  C   PHE   178     -37.195   0.649   3.462  1.00283.03           C
ATOM   1407  O   PHE   178     -37.290   0.886   2.263  1.00283.03           O
ATOM   1408  N   CYS   179     -37.010   1.668   4.342  1.00379.54           N
ATOM   1409  CA  CYS   179     -36.715   2.977   3.780  1.00379.54           C
ATOM   1410  CB  CYS   179     -37.862   3.931   3.535  1.00379.54           C
ATOM   1411  SG  CYS   179     -37.163   5.012   2.277  1.00379.54           S
ATOM   1412  C   CYS   179     -35.672   3.695   4.610  1.00379.54           C
ATOM   1413  O   CYS   179     -35.785   3.667   5.836  1.00379.54           O
ATOM   1414  N   ASP   180     -34.627   4.303   3.946  1.00358.33           N
ATOM   1415  CA  ASP   180     -33.563   5.138   4.512  1.00358.33           C
ATOM   1416  CB  ASP   180     -33.442   5.062   6.039  1.00358.33           C
ATOM   1417  CG  ASP   180     -32.424   6.099   6.481  1.00358.33           C
ATOM   1418  OD1 ASP   180     -31.208   5.888   6.229  1.00358.33           O
ATOM   1419  OD2 ASP   180     -32.853   7.120   7.081  1.00358.33           O
ATOM   1420  C   ASP   180     -32.208   4.770   3.938  1.00358.33           C
ATOM   1421  O   ASP   180     -31.913   3.589   3.838  1.00358.33           O
ATOM   1422  N   ILE   181     -31.318   5.741   3.584  1.00263.63           N
ATOM   1423  CA  ILE   181     -30.028   5.457   2.969  1.00263.63           C
ATOM   1424  CB  ILE   181     -29.147   6.657   2.785  1.00263.63           C
ATOM   1425  CG2 ILE   181     -28.671   7.123   4.171  1.00263.63           C
ATOM   1426  CG1 ILE   181     -28.005   6.328   1.811  1.00263.63           C
ATOM   1427  CD1 ILE   181     -27.300   7.571   1.274  1.00263.63           C
ATOM   1428  C   ILE   181     -29.307   4.459   3.807  1.00263.63           C
ATOM   1429  O   ILE   181     -29.447   4.470   5.026  1.00263.63           O
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ATOM	1430	N	ASN	182	-28.513	3.568	3.168	1.00216.31	N
ATOM	1431	CA	ASN	182	-27.975	2.449	3.886	1.00216.31	C
ATOM	1432	CB	ASN	182	-27.903	1.196	3.001	1.00216.31	C
ATOM	1433	CG	ASN	182	-27.909	-0.007	3.917	1.00216.31	C
ATOM	1434	OD1	ASN	182	-27.244	-0.019	4.951	1.00216.31	O
ATOM	1435	ND2	ASN	182	-28.692	-1.052	3.538	1.00216.31	N
ATOM	1436	C	ASN	182	-26.629	2.753	4.483	1.00216.31	C
ATOM	1437	O	ASN	182	-25.724	3.263	3.832	1.00216.31	O
ATOM	1438	N	PRO	183	-26.581	2.593	5.784	1.00258.09	N
ATOM	1439	CA	PRO	183	-25.390	2.712	6.600	1.00258.09	C
ATOM	1440	CD	PRO	183	-27.786	2.816	6.564	1.00258.09	C
ATOM	1441	CB	PRO	183	-25.875	3.318	7.918	1.00258.09	C
ATOM	1442	CG	PRO	183	-27.337	2.873	8.026	1.00258.09	C
ATOM	1443	C	PRO	183	-24.633	1.427	6.883	1.00258.09	C
ATOM	1444	O	PRO	183	-23.594	1.504	7.536	1.00258.09	O
ATOM	1445	N	LEU	184	-25.097	0.245	6.434	1.00238.75	N
ATOM	1446	CA	LEU	184	-24.578	-0.983	6.996	1.00238.75	C
ATOM	1447	CB	LEU	184	-25.705	-1.987	7.284	1.00238.75	C
ATOM	1448	CG	LEU	184	-26.768	-1.441	8.255	1.00238.75	C
ATOM	1449	CD1	LEU	184	-27.855	-2.489	8.541	1.00238.75	C
ATOM	1450	CD2	LEU	184	-26.129	-0.865	9.529	1.00238.75	C
ATOM	1451	C	LEU	184	-23.534	-1.732	6.193	1.00238.75	C
ATOM	1452	O	LEU	184	-22.335	-1.524	6.358	1.00238.75	O
ATOM	1453	N	LEU	185	-24.011	-2.661	5.331	1.00181.98	N
ATOM	1454	CA	LEU	185	-23.336	-3.711	4.603	1.00181.98	C
ATOM	1455	CB	LEU	185	-24.342	-4.547	3.788	1.00181.98	C
ATOM	1456	CG	LEU	185	-25.396	-5.294	4.634	1.00181.98	C
ATOM	1457	CD1	LEU	185	-24.736	-6.315	5.573	1.00181.98	C
ATOM	1458	CD2	LEU	185	-26.341	-4.321	5.356	1.00181.98	C
ATOM	1459	C	LEU	185	-22.218	-3.331	3.671	1.00181.98	C
ATOM	1460	O	LEU	185	-21.114	-3.840	3.843	1.00181.98	O
ATOM	1461	N	SER	186	-22.408	-2.495	2.633	1.00176.40	N
ATOM	1462	CA	SER	186	-21.196	-2.230	1.904	1.00176.40	C
ATOM	1463	CB	SER	186	-21.376	-1.422	0.614	1.00176.40	C
ATOM	1464	OG	SER	186	-20.134	-1.264	-0.052	1.00176.40	O
ATOM	1465	C	SER	186	-20.492	-1.386	2.891	1.00176.40	C
ATOM	1466	O	SER	186	-19.346	-1.605	3.263	1.00176.40	O
ATOM	1467	N	LEU	187	-21.291	-0.424	3.349	1.00178.20	N
ATOM	1468	CA	LEU	187	-21.193	0.466	4.449	1.00178.20	C
ATOM	1469	CB	LEU	187	-20.322	1.706	4.189	1.00178.20	C
ATOM	1470	CG	LEU	187	-18.815	1.391	4.104	1.00178.20	C
ATOM	1471	CD1	LEU	187	-17.989	2.663	3.849	1.00178.20	C
ATOM	1472	CD2	LEU	187	-18.340	0.617	5.345	1.00178.20	C
ATOM	1473	C	LEU	187	-22.610	0.878	4.423	1.00178.20	C
ATOM	1474	O	LEU	187	-22.981	1.994	4.779	1.00178.20	O
ATOM	1475	N	SER	188	-23.426	-0.085	3.927	1.00245.83	N
ATOM	1476	CA	SER	188	-24.811	0.104	3.643	1.00245.83	C
ATOM	1477	CB	SER	188	-25.029	1.019	2.433	1.00245.83	C
ATOM	1478	OG	SER	188	-24.041	2.039	2.357	1.00245.83	O
ATOM	1479	C	SER	188	-25.295	-1.218	3.156	1.00245.83	C
ATOM	1480	O	SER	188	-25.986	-1.947	3.849	1.00245.83	O
ATOM	1481	N	CYS	189	-25.010	-1.517	1.877	1.00249.88	N
ATOM	1482	CA	CYS	189	-25.382	-2.786	1.331	1.00249.88	C
ATOM	1483	CB	CYS	189	-26.509	-2.711	0.292	1.00249.88	C
ATOM	1484	SG	CYS	189	-26.959	-4.343	-0.379	1.00249.88	S
ATOM	1485	C	CYS	189	-24.182	-3.299	0.619	1.00249.88	C
ATOM	1486	O	CYS	189	-23.646	-2.655	-0.277	1.00249.88	O
ATOM	1487	N	THR	190	-23.727	-4.488	1.036	1.00187.22	N
ATOM	1488	CA	THR	190	-22.514	-5.072	0.561	1.00187.22	C
ATOM	1489	CB	THR	190	-22.209	-6.372	1.240	1.00187.22	C
ATOM	1490	OG1	THR	190	-23.236	-7.312	0.955	1.00187.22	O
ATOM	1491	CG2	THR	190	-22.105	-6.153	2.754	1.00187.22	C
ATOM	1492	C	THR	190	-22.569	-5.408	-0.888	1.00187.22	C
ATOM	1493	O	THR	190	-21.643	-5.084	-1.626	1.00187.22	O
ATOM	1494	N	ASP	191	-23.680	-6.014	-1.341	1.00 96.30	N
ATOM	1495	CA	ASP	191	-23.681	-6.631	-2.635	1.00 96.30	C
ATOM	1496	CB	ASP	191	-25.038	-7.279	-2.970	1.00 96.30	C
ATOM	1497	CG	ASP	191	-25.210	-8.447	-2.007	1.00 96.30	C
ATOM	1498	OD1	ASP	191	-24.229	-8.749	-1.277	1.00 96.30	O
ATOM	1499	OD2	ASP	191	-26.317	-9.049	-1.984	1.00 96.30	O
ATOM	1500	C	ASP	191	-23.291	-5.687	-3.730	1.00 96.30	C
ATOM	1501	O	ASP	191	-22.377	-6.013	-4.487	1.00 96.30	O
ATOM	1502	N	PRO	192	-23.876	-4.541	-3.893	1.00270.88	N
ATOM	1503	CA	PRO	192	-23.394	-3.731	-4.974	1.00270.88	C
ATOM	1504	CD	PRO	192	-25.300	-4.348	-3.664	1.00270.88	C
ATOM	1505	CB	PRO	192	-24.458	-2.658	-5.196	1.00270.88	C
ATOM	1506	CG	PRO	192	-25.757	-3.340	-4.732	1.00270.88	C

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ATOM   1507  C   PRO   192     -22.037  -3.189  -4.670  1.00270.88           C
ATOM   1508  O   PRO   192     -21.291  -2.891  -5.599  1.00270.88           O
ATOM   1509  N   PHE   193     -21.733  -3.012  -3.369  1.00359.67           N
ATOM   1510  CA  PHE   193     -20.504  -2.465  -2.861  1.00359.67           C
ATOM   1511  CB  PHE   193     -19.224  -3.152  -3.377  1.00359.67           C
ATOM   1512  CG  PHE   193     -19.046  -4.460  -2.685  1.00359.67           C
ATOM   1513  CD1 PHE   193     -18.411  -4.507  -1.465  1.00359.67           C
ATOM   1514  CD2 PHE   193     -19.505  -5.632  -3.241  1.00359.67           C
ATOM   1515  CE1 PHE   193     -18.235  -5.700  -0.806  1.00359.67           C
ATOM   1516  CE2 PHE   193     -19.332  -6.829  -2.585  1.00359.67           C
ATOM   1517  CZ  PHE   193     -18.696  -6.866  -1.366  1.00359.67           C
ATOM   1518  C   PHE   193     -20.422  -1.034  -3.248  1.00359.67           C
ATOM   1519  O   PHE   193     -19.465  -0.330  -2.936  1.00359.67           O
ATOM   1520  N   THR   194     -21.469  -0.545  -3.904  1.00237.10           N
ATOM   1521  CA  THR   194     -21.476   0.812  -4.314  1.00237.10           C
ATOM   1522  CB  THR   194     -22.578   1.115  -5.284  1.00237.10           C
ATOM   1523  OG1 THR   194     -22.535   2.483  -5.657  1.00237.10           O
ATOM   1524  CG2 THR   194     -23.925   0.759  -4.640  1.00237.10           C
ATOM   1525  C   THR   194     -21.676   1.612  -3.079  1.00237.10           C
ATOM   1526  O   THR   194     -21.276   2.769  -2.991  1.00237.10           O
ATOM   1527  N   ASN   195     -22.295   0.974  -2.072  1.00188.35           N
ATOM   1528  CA  ASN   195     -22.737   1.639  -0.896  1.00188.35           C
ATOM   1529  CB  ASN   195     -23.386   0.634   0.051  1.00188.35           C
ATOM   1530  CG  ASN   195     -24.540  -0.031  -0.692  1.00188.35           C
ATOM   1531  OD1 ASN   195     -24.334  -0.679  -1.716  1.00188.35           O
ATOM   1532  ND2 ASN   195     -25.788   0.127  -0.176  1.00188.35           N
ATOM   1533  C   ASN   195     -21.609   2.338  -0.204  1.00188.35           C
ATOM   1534  O   ASN   195     -21.752   3.492   0.195  1.00188.35           O
ATOM   1535  N   GLU   196     -20.440   1.693  -0.069  1.00148.53           N
ATOM   1536  CA  GLU   196     -19.382   2.313   0.689  1.00148.53           C
ATOM   1537  CB  GLU   196     -18.108   1.464   0.714  1.00148.53           C
ATOM   1538  CG  GLU   196     -18.294   0.160   1.473  1.00148.53           C
ATOM   1539  CD  GLU   196     -17.116  -0.758   1.195  1.00148.53           C
ATOM   1540  OE1 GLU   196     -16.012  -0.488   1.737  1.00148.53           O
ATOM   1541  OE2 GLU   196     -17.313  -1.748   0.441  1.00148.53           O
ATOM   1542  C   GLU   196     -18.966   3.619   0.089  1.00148.53           C
ATOM   1543  O   GLU   196     -18.839   4.626   0.785  1.00148.53           O
ATOM   1544  N   LEU   197     -18.746   3.646  -1.232  1.00170.48           N
ATOM   1545  CA  LEU   197     -18.241   4.849  -1.827  1.00170.48           C
ATOM   1546  CB  LEU   197     -17.944   4.675  -3.335  1.00170.48           C
ATOM   1547  CG  LEU   197     -17.390   5.906  -4.097  1.00170.48           C
ATOM   1548  CD1 LEU   197     -16.960   5.489  -5.510  1.00170.48           C
ATOM   1549  CD2 LEU   197     -18.374   7.091  -4.172  1.00170.48           C
ATOM   1550  C   LEU   197     -19.269   5.909  -1.653  1.00170.48           C
ATOM   1551  O   LEU   197     -18.940   7.053  -1.348  1.00170.48           O
ATOM   1552  N   VAL   198     -20.549   5.540  -1.828  1.00139.74           N
ATOM   1553  CA  VAL   198     -21.604   6.504  -1.799  1.00139.74           C
ATOM   1554  CB  VAL   198     -22.951   5.896  -2.046  1.00139.74           C
ATOM   1555  CG1 VAL   198     -24.016   6.978  -1.836  1.00139.74           C
ATOM   1556  CG2 VAL   198     -22.957   5.274  -3.452  1.00139.74           C
ATOM   1557  C   VAL   198     -21.658   7.155  -0.462  1.00139.74           C
ATOM   1558  O   VAL   198     -21.862   8.361  -0.371  1.00139.74           O
ATOM   1559  N   ILE   199     -21.479   6.387   0.623  1.00200.38           N
ATOM   1560  CA  ILE   199     -21.610   7.012   1.902  1.00200.38           C
ATOM   1561  CB  ILE   199     -21.530   6.028   3.045  1.00200.38           C
ATOM   1562  CG2 ILE   199     -22.707   5.053   2.874  1.00200.38           C
ATOM   1563  CG1 ILE   199     -20.167   5.318   3.149  1.00200.38           C
ATOM   1564  CD1 ILE   199     -19.086   6.118   3.876  1.00200.38           C
ATOM   1565  C   ILE   199     -20.574   8.077   2.036  1.00200.38           C
ATOM   1566  O   ILE   199     -20.871   9.177   2.497  1.00200.38           O
ATOM   1567  N   PHE   200     -19.327   7.791   1.627  1.00147.20           N
ATOM   1568  CA  PHE   200     -18.291   8.771   1.775  1.00147.20           C
ATOM   1569  CB  PHE   200     -16.900   8.216   1.426  1.00147.20           C
ATOM   1570  CG  PHE   200     -15.896   9.277   1.726  1.00147.20           C
ATOM   1571  CD1 PHE   200     -15.421   9.445   3.006  1.00147.20           C
ATOM   1572  CD2 PHE   200     -15.425  10.100   0.729  1.00147.20           C
ATOM   1573  CE1 PHE   200     -14.493  10.420   3.290  1.00147.20           C
ATOM   1574  CE2 PHE   200     -14.497  11.076   1.006  1.00147.20           C
ATOM   1575  CZ  PHE   200     -14.030  11.239   2.288  1.00147.20           C
ATOM   1576  C   PHE   200     -18.566   9.925   0.867  1.00147.20           C
ATOM   1577  O   PHE   200     -18.509  11.084   1.276  1.00147.20           O
ATOM   1578  N   ILE   201     -18.900   9.625  -0.400  1.00197.95           N
ATOM   1579  CA  ILE   201     -19.081  10.658  -1.373  1.00197.95           C
ATOM   1580  CB  ILE   201     -19.306  10.114  -2.761  1.00197.95           C
ATOM   1581  CG2 ILE   201     -20.598   9.280  -2.762  1.00197.95           C
ATOM   1582  CG1 ILE   201     -19.287  11.253  -3.794  1.00197.95           C
ATOM   1583  CD1 ILE   201     -17.914  11.905  -3.952  1.00197.95           C
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ATOM   1584  C   ILE   201     -20.241  11.529  -1.003  1.00197.95           C
ATOM   1585  O   ILE   201     -20.143  12.751  -1.070  1.00197.95           O
ATOM   1586  N   THR   202     -21.369  10.917  -0.600  1.00159.18           N
ATOM   1587  CA  THR   202     -22.587  11.630  -0.334  1.00159.18           C
ATOM   1588  CB  THR   202     -23.753  10.726  -0.079  1.00159.18           C
ATOM   1589  OG1 THR   202     -23.499   9.897   1.045  1.00159.18           O
ATOM   1590  CG2 THR   202     -23.991   9.877  -1.332  1.00159.18           C
ATOM   1591  C   THR   202     -22.478  12.527   0.846  1.00159.18           C
ATOM   1592  O   THR   202     -22.878  13.687   0.782  1.00159.18           O
ATOM   1593  N   GLY   203     -21.933  12.026   1.965  1.00 70.42           N
ATOM   1594  CA  GLY   203     -21.918  12.854   3.129  1.00 70.42           C
ATOM   1595  C   GLY   203     -21.084  14.050   2.842  1.00 70.42           C
ATOM   1596  O   GLY   203     -21.467  15.171   3.173  1.00 70.42           O
ATOM   1597  N   GLY   204     -19.905  13.837   2.232  1.00 60.79           N
ATOM   1598  CA  GLY   204     -19.048  14.954   1.975  1.00 60.79           C
ATOM   1599  C   GLY   204     -19.641  15.875   0.949  1.00 60.79           C
ATOM   1600  O   GLY   204     -19.737  17.080   1.169  1.00 60.79           O
ATOM   1601  N   LEU   205     -20.059  15.324  -0.207  1.00193.33           N
ATOM   1602  CA  LEU   205     -20.526  16.127  -1.303  1.00193.33           C
ATOM   1603  CB  LEU   205     -20.639  15.292  -2.588  1.00193.33           C
ATOM   1604  CG  LEU   205     -21.081  16.078  -3.830  1.00193.33           C
ATOM   1605  CD1 LEU   205     -20.131  17.250  -4.124  1.00193.33           C
ATOM   1606  CD2 LEU   205     -21.212  15.130  -5.031  1.00193.33           C
ATOM   1607  C   LEU   205     -21.850  16.781  -1.009  1.00193.33           C
ATOM   1608  O   LEU   205     -22.038  17.964  -1.285  1.00193.33           O
ATOM   1609  N   THR   206     -22.810  16.013  -0.459  1.00 97.07           N
ATOM   1610  CA  THR   206     -24.145  16.468  -0.168  1.00 97.07           C
ATOM   1611  CB  THR   206     -25.056  15.337   0.196  1.00 97.07           C
ATOM   1612  OG1 THR   206     -25.174  14.423  -0.884  1.00 97.07           O
ATOM   1613  CG2 THR   206     -26.424  15.916   0.581  1.00 97.07           C
ATOM   1614  C   THR   206     -24.202  17.427   0.980  1.00 97.07           C
ATOM   1615  O   THR   206     -24.977  18.383   0.943  1.00 97.07           O
ATOM   1616  N   GLY   207     -23.394  17.191   2.033  1.00102.03           N
ATOM   1617  CA  GLY   207     -23.553  17.941   3.247  1.00102.03           C
ATOM   1618  C   GLY   207     -22.339  18.749   3.600  1.00102.03           C
ATOM   1619  O   GLY   207     -22.370  19.977   3.561  1.00102.03           O
ATOM   1620  N   LEU   208     -21.238  18.071   3.973  1.00109.38           N
ATOM   1621  CA  LEU   208     -20.075  18.715   4.522  1.00109.38           C
ATOM   1622  CB  LEU   208     -18.961  17.719   4.886  1.00109.38           C
ATOM   1623  CG  LEU   208     -19.341  16.771   6.039  1.00109.38           C
ATOM   1624  CD1 LEU   208     -19.511  17.539   7.360  1.00109.38           C
ATOM   1625  CD2 LEU   208     -20.570  15.919   5.685  1.00109.38           C
ATOM   1626  C   LEU   208     -19.490  19.739   3.590  1.00109.38           C
ATOM   1627  O   LEU   208     -19.071  20.800   4.048  1.00109.38           O
ATOM   1628  N   ILE   209     -19.427  19.469   2.271  1.00 95.36           N
ATOM   1629  CA  ILE   209     -18.805  20.406   1.370  1.00 95.36           C
ATOM   1630  CB  ILE   209     -18.763  19.911  -0.046  1.00 95.36           C
ATOM   1631  CG2 ILE   209     -18.274  21.066  -0.935  1.00 95.36           C
ATOM   1632  CG1 ILE   209     -17.903  18.639  -0.148  1.00 95.36           C
ATOM   1633  CD1 ILE   209     -16.452  18.849   0.282  1.00 95.36           C
ATOM   1634  C   ILE   209     -19.563  21.700   1.355  1.00 95.36           C
ATOM   1635  O   ILE   209     -18.970  22.769   1.490  1.00 95.36           O
ATOM   1636  N   CYS   210     -20.900  21.640   1.219  1.00 46.99           N
ATOM   1637  CA  CYS   210     -21.706  22.826   1.154  1.00 46.99           C
ATOM   1638  CB  CYS   210     -23.202  22.515   0.962  1.00 46.99           C
ATOM   1639  SG  CYS   210     -23.551  21.674  -0.613  1.00 46.99           S
ATOM   1640  C   CYS   210     -21.560  23.542   2.459  1.00 46.99           C
ATOM   1641  O   CYS   210     -21.564  24.770   2.512  1.00 46.99           O
ATOM   1642  N   VAL   211     -21.440  22.775   3.557  1.00 51.84           N
ATOM   1643  CA  VAL   211     -21.327  23.334   4.871  1.00 51.84           C
ATOM   1644  CB  VAL   211     -21.227  22.281   5.934  1.00 51.84           C
ATOM   1645  CG1 VAL   211     -20.947  22.973   7.278  1.00 51.84           C
ATOM   1646  CG2 VAL   211     -22.516  21.443   5.910  1.00 51.84           C
ATOM   1647  C   VAL   211     -20.078  24.159   4.960  1.00 51.84           C
ATOM   1648  O   VAL   211     -20.095  25.262   5.501  1.00 51.84           O
ATOM   1649  N   LEU   212     -18.955  23.646   4.424  1.00 47.78           N
ATOM   1650  CA  LEU   212     -17.699  24.333   4.548  1.00 47.78           C
ATOM   1651  CB  LEU   212     -16.535  23.550   3.923  1.00 47.78           C
ATOM   1652  CG  LEU   212     -16.258  22.212   4.631  1.00 47.78           C
ATOM   1653  CD1 LEU   212     -15.085  21.467   3.971  1.00 47.78           C
ATOM   1654  CD2 LEU   212     -16.066  22.413   6.145  1.00 47.78           C
ATOM   1655  C   LEU   212     -17.765  25.652   3.847  1.00 47.78           C
ATOM   1656  O   LEU   212     -17.343  26.671   4.394  1.00 47.78           O
ATOM   1657  N   CYS   213     -18.301  25.678   2.613  1.00 77.69           N
ATOM   1658  CA  CYS   213     -18.322  26.909   1.880  1.00 77.69           C
ATOM   1659  CB  CYS   213     -18.827  26.761   0.429  1.00 77.69           C
ATOM   1660  SG  CYS   213     -20.578  26.295   0.300  1.00 77.69           S
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ATOM   1661  C   CYS   213     -19.199  27.886   2.592  1.00 77.69           C
ATOM   1662  O   CYS   213     -18.854  29.059   2.723  1.00 77.69           O
ATOM   1663  N   LEU   214     -20.353  27.406   3.089  1.00130.40           N
ATOM   1664  CA  LEU   214     -21.322  28.243   3.730  1.00130.40           C
ATOM   1665  CB  LEU   214     -22.544  27.412   4.171  1.00130.40           C
ATOM   1666  CG  LEU   214     -23.681  28.179   4.874  1.00130.40           C
ATOM   1667  CD1 LEU   214     -23.292  28.624   6.293  1.00130.40           C
ATOM   1668  CD2 LEU   214     -24.209  29.325   3.998  1.00130.40           C
ATOM   1669  C   LEU   214     -20.691  28.861   4.934  1.00130.40           C
ATOM   1670  O   LEU   214     -20.786  30.069   5.143  1.00130.40           O
ATOM   1671  N   ILE   215     -20.003  28.051   5.754  1.00 88.29           N
ATOM   1672  CA  ILE   215     -19.418  28.572   6.953  1.00 88.29           C
ATOM   1673  CB  ILE   215     -18.835  27.510   7.844  1.00 88.29           C
ATOM   1674  CG2 ILE   215     -17.679  26.808   7.114  1.00 88.29           C
ATOM   1675  CG1 ILE   215     -18.443  28.121   9.197  1.00 88.29           C
ATOM   1676  CD1 ILE   215     -18.114  27.072  10.256  1.00 88.29           C
ATOM   1677  C   ILE   215     -18.340  29.552   6.613  1.00 88.29           C
ATOM   1678  O   ILE   215     -18.279  30.637   7.190  1.00 88.29           O
ATOM   1679  N   ILE   216     -17.471  29.209   5.646  1.00 84.61           N
ATOM   1680  CA  ILE   216     -16.372  30.074   5.336  1.00 84.61           C
ATOM   1681  CB  ILE   216     -15.423  29.476   4.333  1.00 84.61           C
ATOM   1682  CG2 ILE   216     -14.815  28.206   4.952  1.00 84.61           C
ATOM   1683  CG1 ILE   216     -16.125  29.228   2.987  1.00 84.61           C
ATOM   1684  CD1 ILE   216     -15.162  28.944   1.836  1.00 84.61           C
ATOM   1685  C   ILE   216     -16.878  31.372   4.785  1.00 84.61           C
ATOM   1686  O   ILE   216     -16.445  32.444   5.203  1.00 84.61           O
ATOM   1687  N   SER   217     -17.825  31.313   3.834  1.00 43.65           N
ATOM   1688  CA  SER   217     -18.302  32.504   3.196  1.00 43.65           C
ATOM   1689  CB  SER   217     -19.261  32.211   2.029  1.00 43.65           C
ATOM   1690  OG  SER   217     -20.448  31.603   2.517  1.00 43.65           O
ATOM   1691  C   SER   217     -19.048  33.359   4.168  1.00 43.65           C
ATOM   1692  O   SER   217     -18.879  34.577   4.191  1.00 43.65           O
ATOM   1693  N   TYR   218     -19.890  32.737   5.011  1.00 95.24           N
ATOM   1694  CA  TYR   218     -20.738  33.501   5.874  1.00 95.24           C
ATOM   1695  CB  TYR   218     -21.814  32.685   6.606  1.00 95.24           C
ATOM   1696  CG  TYR   218     -22.869  33.700   6.879  1.00 95.24           C
ATOM   1697  CD1 TYR   218     -23.685  34.086   5.841  1.00 95.24           C
ATOM   1698  CD2 TYR   218     -23.056  34.266   8.118  1.00 95.24           C
ATOM   1699  CE1 TYR   218     -24.671  35.023   6.019  1.00 95.24           C
ATOM   1700  CE2 TYR   218     -24.046  35.207   8.306  1.00 95.24           C
ATOM   1701  CZ  TYR   218     -24.852  35.587   7.257  1.00 95.24           C
ATOM   1702  OH  TYR   218     -25.864  36.552   7.441  1.00 95.24           O
ATOM   1703  C   TYR   218     -19.905  34.223   6.891  1.00 95.24           C
ATOM   1704  O   TYR   218     -20.259  35.320   7.318  1.00 95.24           O
ATOM   1705  N   THR   219     -18.792  33.610   7.341  1.00110.56           N
ATOM   1706  CA  THR   219     -17.955  34.248   8.319  1.00110.56           C
ATOM   1707  CB  THR   219     -16.767  33.423   8.722  1.00110.56           C
ATOM   1708  OG1 THR   219     -15.916  33.202   7.608  1.00110.56           O
ATOM   1709  CG2 THR   219     -17.264  32.084   9.291  1.00110.56           C
ATOM   1710  C   THR   219     -17.432  35.517   7.720  1.00110.56           C
ATOM   1711  O   THR   219     -17.314  36.532   8.405  1.00110.56           O
ATOM   1712  N   ASN   220     -17.104  35.483   6.414  1.00 54.59           N
ATOM   1713  CA  ASN   220     -16.575  36.621   5.718  1.00 54.59           C
ATOM   1714  CB  ASN   220     -16.261  36.323   4.241  1.00 54.59           C
ATOM   1715  CG  ASN   220     -15.110  35.327   4.195  1.00 54.59           C
ATOM   1716  OD1 ASN   220     -14.345  35.198   5.148  1.00 54.59           O
ATOM   1717  ND2 ASN   220     -14.978  34.604   3.050  1.00 54.59           N
ATOM   1718  C   ASN   220     -17.603  37.709   5.738  1.00 54.59           C
ATOM   1719  O   ASN   220     -17.269  38.885   5.867  1.00 54.59           O
ATOM   1720  N   VAL   221     -18.890  37.338   5.609  1.00 52.12           N
ATOM   1721  CA  VAL   221     -19.956  38.297   5.584  1.00 52.12           C
ATOM   1722  CB  VAL   221     -21.306  37.656   5.427  1.00 52.12           C
ATOM   1723  CG1 VAL   221     -22.391  38.737   5.565  1.00 52.12           C
ATOM   1724  CG2 VAL   221     -21.342  36.915   4.078  1.00 52.12           C
ATOM   1725  C   VAL   221     -19.948  39.041   6.880  1.00 52.12           C
ATOM   1726  O   VAL   221     -20.157  40.252   6.909  1.00 52.12           O
ATOM   1727  N   PHE   222     -19.693  38.338   7.997  1.00 82.36           N
ATOM   1728  CA  PHE   222     -19.705  38.998   9.269  1.00 82.36           C
ATOM   1729  CB  PHE   222     -19.420  38.069  10.461  1.00 82.36           C
ATOM   1730  CG  PHE   222     -20.599  37.185  10.668  1.00 82.36           C
ATOM   1731  CD1 PHE   222     -21.769  37.703  11.175  1.00 82.36           C
ATOM   1732  CD2 PHE   222     -20.531  35.842  10.383  1.00 82.36           C
ATOM   1733  CE1 PHE   222     -22.863  36.896  11.376  1.00 82.36           C
ATOM   1734  CE2 PHE   222     -21.623  35.030  10.583  1.00 82.36           C
ATOM   1735  CZ  PHE   222     -22.792  35.557  11.079  1.00 82.36           C
ATOM   1736  C   PHE   222     -18.648  40.059   9.292  1.00 82.36           C
ATOM   1737  O   PHE   222     -18.897  41.176   9.744  1.00 82.36           O
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ATOM   1738  N   SER   223     -17.435  39.748   8.798  1.00 87.92           N
ATOM   1739  CA  SER   223     -16.368  40.706   8.867  1.00 87.92           C
ATOM   1740  CB  SER   223     -15.059  40.193   8.243  1.00 87.92           C
ATOM   1741  OG  SER   223     -14.557  39.095   8.991  1.00 87.92           O
ATOM   1742  C   SER   223     -16.766  41.932   8.108  1.00 87.92           C
ATOM   1743  O   SER   223     -16.557  43.052   8.571  1.00 87.92           O
ATOM   1744  N   THR   224     -17.352  41.750   6.912  1.00146.38           N
ATOM   1745  CA  THR   224     -17.734  42.872   6.108  1.00146.38           C
ATOM   1746  CB  THR   224     -18.214  42.491   4.734  1.00146.38           C
ATOM   1747  OG1 THR   224     -19.379  41.685   4.813  1.00146.38           O
ATOM   1748  CG2 THR   224     -17.092  41.724   4.016  1.00146.38           C
ATOM   1749  C   THR   224     -18.830  43.633   6.785  1.00146.38           C
ATOM   1750  O   THR   224     -18.811  44.862   6.803  1.00146.38           O
ATOM   1751  N   ILE   225     -19.792  42.923   7.407  1.00135.62           N
ATOM   1752  CA  ILE   225     -20.937  43.588   7.957  1.00135.62           C
ATOM   1753  CB  ILE   225     -21.877  42.647   8.653  1.00135.62           C
ATOM   1754  CG2 ILE   225     -22.957  43.485   9.359  1.00135.62           C
ATOM   1755  CG1 ILE   225     -22.439  41.616   7.660  1.00135.62           C
ATOM   1756  CD1 ILE   225     -23.166  40.453   8.336  1.00135.62           C
ATOM   1757  C   ILE   225     -20.480  44.594   8.959  1.00135.62           C
ATOM   1758  O   ILE   225     -20.901  45.746   8.876  1.00135.62           O
ATOM   1759  N   LEU   226     -19.611  44.182   9.909  1.00354.06           N
ATOM   1760  CA  LEU   226     -19.008  45.024  10.912  1.00354.06           C
ATOM   1761  CB  LEU   226     -19.607  46.425  11.175  1.00354.06           C
ATOM   1762  CG  LEU   226     -19.243  47.509  10.135  1.00354.06           C
ATOM   1763  CD1 LEU   226     -19.890  48.856  10.497  1.00354.06           C
ATOM   1764  CD2 LEU   226     -17.723  47.611   9.940  1.00354.06           C
ATOM   1765  C   LEU   226     -19.035  44.316  12.219  1.00354.06           C
ATOM   1766  O   LEU   226     -19.839  43.416  12.456  1.00354.06           O
ATOM   1767  N   LYS   227     -18.129  44.735  13.115  1.00243.28           N
ATOM   1768  CA  LYS   227     -18.014  44.140  14.409  1.00243.28           C
ATOM   1769  CB  LYS   227     -16.956  44.862  15.250  1.00243.28           C
ATOM   1770  CG  LYS   227     -15.580  44.927  14.591  1.00243.28           C
ATOM   1771  CD  LYS   227     -14.698  46.033  15.170  1.00243.28           C
ATOM   1772  CE  LYS   227     -15.185  47.439  14.806  1.00243.28           C
ATOM   1773  NZ  LYS   227     -14.374  48.458  15.508  1.00243.28           N
ATOM   1774  C   LYS   227     -19.307  44.353  15.126  1.00243.28           C
ATOM   1775  O   LYS   227     -19.903  43.424  15.669  1.00243.28           O
ATOM   1776  N   ILE   228     -19.795  45.603  15.103  1.00220.18           N
ATOM   1777  CA  ILE   228     -20.966  45.933  15.851  1.00220.18           C
ATOM   1778  CB  ILE   228     -21.021  47.376  16.267  1.00220.18           C
ATOM   1779  CG2 ILE   228     -19.832  47.645  17.204  1.00220.18           C
ATOM   1780  CG1 ILE   228     -21.063  48.297  15.036  1.00220.18           C
ATOM   1781  CD1 ILE   228     -21.382  49.753  15.376  1.00220.18           C
ATOM   1782  C   ILE   228     -22.170  45.656  15.026  1.00220.18           C
ATOM   1783  O   ILE   228     -22.218  45.922  13.826  1.00220.18           O
ATOM   1784  N   PRO   229     -23.140  45.074  15.667  1.00197.13           N
ATOM   1785  CA  PRO   229     -24.389  44.855  15.010  1.00197.13           C
ATOM   1786  CD  PRO   229     -22.893  44.114  16.729  1.00197.13           C
ATOM   1787  CB  PRO   229     -25.199  43.980  15.963  1.00197.13           C
ATOM   1788  CG  PRO   229     -24.120  43.187  16.728  1.00197.13           C
ATOM   1789  C   PRO   229     -24.923  46.227  14.797  1.00197.13           C
ATOM   1790  O   PRO   229     -24.768  47.064  15.684  1.00197.13           O
ATOM   1791  N   SER   230     -25.555  46.486  13.643  1.00 91.40           N
ATOM   1792  CA  SER   230     -26.005  47.816  13.382  1.00 91.40           C
ATOM   1793  CB  SER   230     -26.481  48.023  11.931  1.00 91.40           C
ATOM   1794  OG  SER   230     -26.888  49.367  11.723  1.00 91.40           O
ATOM   1795  C   SER   230     -27.150  48.060  14.294  1.00 91.40           C
ATOM   1796  O   SER   230     -27.555  47.174  15.045  1.00 91.40           O
ATOM   1797  N   ALA   231     -27.686  49.292  14.259  1.00360.34           N
ATOM   1798  CA  ALA   231     -28.785  49.612  15.108  1.00360.34           C
ATOM   1799  CB  ALA   231     -29.343  51.024  14.858  1.00360.34           C
ATOM   1800  C   ALA   231     -29.849  48.641  14.740  1.00360.34           C
ATOM   1801  O   ALA   231     -30.536  48.110  15.611  1.00360.34           O
ATOM   1802  N   GLN   232     -30.000  48.370  13.428  1.00298.30           N
ATOM   1803  CA  GLN   232     -31.025  47.449  13.051  1.00298.30           C
ATOM   1804  CB  GLN   232     -32.424  48.017  13.365  1.00298.30           C
ATOM   1805  CG  GLN   232     -33.587  47.021  13.320  1.00298.30           C
ATOM   1806  CD  GLN   232     -34.864  47.808  13.591  1.00298.30           C
ATOM   1807  OE1 GLN   232     -35.093  48.867  13.007  1.00298.30           O
ATOM   1808  NE2 GLN   232     -35.721  47.283  14.507  1.00298.30           N
ATOM   1809  C   GLN   232     -30.920  47.231  11.576  1.00298.30           C
ATOM   1810  O   GLN   232     -29.848  47.344  10.982  1.00298.30           O
ATOM   1811  N   GLY   233     -32.055  46.850  10.964  1.00567.95           N
ATOM   1812  CA  GLY   233     -32.159  46.723   9.547  1.00567.95           C
ATOM   1813  C   GLY   233     -31.389  45.555   9.034  1.00567.95           C
ATOM   1814  O   GLY   233     -31.569  44.417   9.463  1.00567.95           O
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ATOM   1815  N   LYS   234     -30.494  45.845   8.077  1.00267.96           N
ATOM   1816  CA  LYS   234     -29.798  44.844   7.328  1.00267.96           C
ATOM   1817  CB  LYS   234     -28.873  45.430   6.249  1.00267.96           C
ATOM   1818  CG  LYS   234     -28.467  44.405   5.187  1.00267.96           C
ATOM   1819  CD  LYS   234     -29.645  43.959   4.314  1.00267.96           C
ATOM   1820  CE  LYS   234     -29.245  43.146   3.077  1.00267.96           C
ATOM   1821  NZ  LYS   234     -29.054  41.720   3.432  1.00267.96           N
ATOM   1822  C   LYS   234     -28.967  43.977   8.213  1.00267.96           C
ATOM   1823  O   LYS   234     -28.869  42.773   7.981  1.00267.96           O
ATOM   1824  N   ARG   235     -28.344  44.549   9.255  1.00150.56           N
ATOM   1825  CA  ARG   235     -27.481  43.745  10.069  1.00150.56           C
ATOM   1826  CB  ARG   235     -26.814  44.541  11.207  1.00150.56           C
ATOM   1827  CG  ARG   235     -25.708  43.763  11.926  1.00150.56           C
ATOM   1828  CD  ARG   235     -26.204  42.986  13.145  1.00150.56           C
ATOM   1829  NE  ARG   235     -25.070  42.160  13.644  1.00150.56           N
ATOM   1830  CZ  ARG   235     -25.270  40.832  13.876  1.00150.56           C
ATOM   1831  NH1 ARG   235     -26.499  40.294  13.622  1.00150.56           N
ATOM   1832  NH2 ARG   235     -24.265  40.046  14.362  1.00150.56           N
ATOM   1833  C   ARG   235     -28.300  42.652  10.678  1.00150.56           C
ATOM   1834  O   ARG   235     -27.846  41.514  10.791  1.00150.56           O
ATOM   1835  N   LYS   236     -29.545  42.972  11.072  1.00148.16           N
ATOM   1836  CA  LYS   236     -30.399  42.009  11.705  1.00148.16           C
ATOM   1837  CB  LYS   236     -31.765  42.596  12.085  1.00148.16           C
ATOM   1838  CG  LYS   236     -32.688  41.591  12.769  1.00148.16           C
ATOM   1839  CD  LYS   236     -33.934  42.231  13.380  1.00148.16           C
ATOM   1840  CE  LYS   236     -34.895  41.220  14.003  1.00148.16           C
ATOM   1841  NZ  LYS   236     -34.399  40.802  15.332  1.00148.16           N
ATOM   1842  C   LYS   236     -30.653  40.869  10.768  1.00148.16           C
ATOM   1843  O   LYS   236     -30.624  39.708  11.170  1.00148.16           O
ATOM   1844  N   ALA   237     -30.876  41.173   9.478  1.00123.32           N
ATOM   1845  CA  ALA   237     -31.203  40.151   8.528  1.00123.32           C
ATOM   1846  CB  ALA   237     -31.406  40.706   7.106  1.00123.32           C
ATOM   1847  C   ALA   237     -30.077  39.174   8.481  1.00123.32           C
ATOM   1848  O   ALA   237     -30.290  37.966   8.380  1.00123.32           O
ATOM   1849  N   PHE   238     -28.836  39.673   8.562  1.00 84.41           N
ATOM   1850  CA  PHE   238     -27.711  38.791   8.480  1.00 84.41           C
ATOM   1851  CB  PHE   238     -26.362  39.531   8.436  1.00 84.41           C
ATOM   1852  CG  PHE   238     -26.230  40.088   7.062  1.00 84.41           C
ATOM   1853  CD1 PHE   238     -26.904  41.227   6.693  1.00 84.41           C
ATOM   1854  CD2 PHE   238     -25.421  39.467   6.142  1.00 84.41           C
ATOM   1855  CE1 PHE   238     -26.781  41.736   5.423  1.00 84.41           C
ATOM   1856  CE2 PHE   238     -25.294  39.976   4.869  1.00 84.41           C
ATOM   1857  CZ  PHE   238     -25.974  41.113   4.504  1.00 84.41           C
ATOM   1858  C   PHE   238     -27.722  37.844   9.637  1.00 84.41           C
ATOM   1859  O   PHE   238     -27.446  36.657   9.473  1.00 84.41           O
ATOM   1860  N   SER   239     -28.052  38.333  10.845  1.00102.39           N
ATOM   1861  CA  SER   239     -28.016  37.457  11.979  1.00102.39           C
ATOM   1862  CB  SER   239     -28.380  38.154  13.302  1.00102.39           C
ATOM   1863  OG  SER   239     -29.744  38.548  13.296  1.00102.39           O
ATOM   1864  C   SER   239     -28.996  36.348  11.784  1.00102.39           C
ATOM   1865  O   SER   239     -28.701  35.195  12.096  1.00102.39           O
ATOM   1866  N   THR   240     -30.191  36.657  11.251  1.00182.35           N
ATOM   1867  CA  THR   240     -31.172  35.619  11.123  1.00182.35           C
ATOM   1868  CB  THR   240     -32.518  36.097  10.656  1.00182.35           C
ATOM   1869  OG1 THR   240     -33.475  35.065  10.834  1.00182.35           O
ATOM   1870  CG2 THR   240     -32.455  36.479   9.170  1.00182.35           C
ATOM   1871  C   THR   240     -30.688  34.575  10.170  1.00182.35           C
ATOM   1872  O   THR   240     -30.861  33.380  10.405  1.00182.35           O
ATOM   1873  N   CYS   241     -30.043  34.992   9.069  1.00 83.12           N
ATOM   1874  CA  CYS   241     -29.599  34.029   8.104  1.00 83.12           C
ATOM   1875  CB  CYS   241     -28.849  34.667   6.922  1.00 83.12           C
ATOM   1876  SG  CYS   241     -29.909  35.763   5.934  1.00 83.12           S
ATOM   1877  C   CYS   241     -28.645  33.113   8.796  1.00 83.12           C
ATOM   1878  O   CYS   241     -28.662  31.902   8.580  1.00 83.12           O
ATOM   1879  N   SER   242     -27.787  33.674   9.664  1.00 94.32           N
ATOM   1880  CA  SER   242     -26.830  32.861  10.354  1.00 94.32           C
ATOM   1881  CB  SER   242     -25.882  33.680  11.251  1.00 94.32           C
ATOM   1882  OG  SER   242     -24.964  32.816  11.906  1.00 94.32           O
ATOM   1883  C   SER   242     -27.563  31.897  11.236  1.00 94.32           C
ATOM   1884  O   SER   242     -27.123  30.764  11.423  1.00 94.32           O
ATOM   1885  N   SER   243     -28.712  32.318  11.805  1.00 93.23           N
ATOM   1886  CA  SER   243     -29.443  31.467  12.702  1.00 93.23           C
ATOM   1887  CB  SER   243     -30.620  32.186  13.382  1.00 93.23           C
ATOM   1888  OG  SER   243     -31.244  31.319  14.316  1.00 93.23           O
ATOM   1889  C   SER   243     -29.985  30.285  11.955  1.00 93.23           C
ATOM   1890  O   SER   243     -29.962  29.162  12.457  1.00 93.23           O
ATOM   1891  N   HIS   244     -30.483  30.502  10.722  1.00135.19           N
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ATOM   1892  CA  HIS   244     -31.034  29.416   9.960  1.00135.19           C
ATOM   1893  ND1 HIS   244     -33.127  27.866   8.063  1.00135.19           N
ATOM   1894  CG  HIS   244     -32.034  28.654   7.779  1.00135.19           C
ATOM   1895  CB  HIS   244     -31.604  29.836   8.597  1.00135.19           C
ATOM   1896  NE2 HIS   244     -32.189  27.016   6.234  1.00135.19           N
ATOM   1897  CD2 HIS   244     -31.473  28.121   6.659  1.00135.19           C
ATOM   1898  CE1 HIS   244     -33.173  26.902   7.108  1.00135.19           C
ATOM   1899  C   HIS   244     -29.958  28.417   9.691  1.00135.19           C
ATOM   1900  O   HIS   244     -30.188  27.210   9.755  1.00135.19           O
ATOM   1901  N   LEU   245     -28.749  28.906   9.371  1.00 92.45           N
ATOM   1902  CA  LEU   245     -27.646  28.049   9.053  1.00 92.45           C
ATOM   1903  CB  LEU   245     -26.380  28.859   8.727  1.00 92.45           C
ATOM   1904  CG  LEU   245     -26.472  29.667   7.421  1.00 92.45           C
ATOM   1905  CD1 LEU   245     -25.261  30.596   7.251  1.00 92.45           C
ATOM   1906  CD2 LEU   245     -26.641  28.731   6.217  1.00 92.45           C
ATOM   1907  C   LEU   245     -27.320  27.206  10.247  1.00 92.45           C
ATOM   1908  O   LEU   245     -27.159  25.992  10.136  1.00 92.45           O
ATOM   1909  N   SER   246     -27.232  27.838  11.432  1.00 93.27           N
ATOM   1910  CA  SER   246     -26.848  27.139  12.625  1.00 93.27           C
ATOM   1911  CB  SER   246     -26.689  28.074  13.836  1.00 93.27           C
ATOM   1912  OG  SER   246     -26.312  27.325  14.983  1.00 93.27           O
ATOM   1913  C   SER   246     -27.893  26.126  12.978  1.00 93.27           C
ATOM   1914  O   SER   246     -27.569  25.014  13.391  1.00 93.27           O
ATOM   1915  N   VAL   247     -29.181  26.482  12.819  1.00 43.84           N
ATOM   1916  CA  VAL   247     -30.238  25.586  13.192  1.00 43.84           C
ATOM   1917  CB  VAL   247     -31.598  26.155  12.954  1.00 43.84           C
ATOM   1918  CG1 VAL   247     -32.619  25.038  13.231  1.00 43.84           C
ATOM   1919  CG2 VAL   247     -31.778  27.411  13.822  1.00 43.84           C
ATOM   1920  C   VAL   247     -30.157  24.352  12.360  1.00 43.84           C
ATOM   1921  O   VAL   247     -30.279  23.241  12.873  1.00 43.84           O
ATOM   1922  N   VAL   248     -29.939  24.518  11.046  1.00 72.32           N
ATOM   1923  CA  VAL   248     -29.902  23.398  10.156  1.00 72.32           C
ATOM   1924  CB  VAL   248     -29.632  23.802   8.736  1.00 72.32           C
ATOM   1925  CG1 VAL   248     -29.490  22.531   7.882  1.00 72.32           C
ATOM   1926  CG2 VAL   248     -30.752  24.747   8.273  1.00 72.32           C
ATOM   1927  C   VAL   248     -28.793  22.498  10.581  1.00 72.32           C
ATOM   1928  O   VAL   248     -28.957  21.281  10.640  1.00 72.32           O
ATOM   1929  N   SER   249     -27.628  23.081  10.904  1.00107.29           N
ATOM   1930  CA  SER   249     -26.501  22.277  11.267  1.00107.29           C
ATOM   1931  CB  SER   249     -25.215  23.093  11.489  1.00107.29           C
ATOM   1932  OG  SER   249     -25.352  23.947  12.614  1.00107.29           O
ATOM   1933  C   SER   249     -26.803  21.537  12.531  1.00107.29           C
ATOM   1934  O   SER   249     -26.489  20.355  12.651  1.00107.29           O
ATOM   1935  N   LEU   250     -27.455  22.206  13.498  1.00 57.85           N
ATOM   1936  CA  LEU   250     -27.682  21.594  14.774  1.00 57.85           C
ATOM   1937  CB  LEU   250     -28.418  22.530  15.752  1.00 57.85           C
ATOM   1938  CG  LEU   250     -27.653  23.826  16.080  1.00 57.85           C
ATOM   1939  CD1 LEU   250     -28.448  24.708  17.057  1.00 57.85           C
ATOM   1940  CD2 LEU   250     -26.223  23.532  16.564  1.00 57.85           C
ATOM   1941  C   LEU   250     -28.539  20.375  14.619  1.00 57.85           C
ATOM   1942  O   LEU   250     -28.248  19.325  15.190  1.00 57.85           O
ATOM   1943  N   PHE   251     -29.639  20.476  13.853  1.00129.72           N
ATOM   1944  CA  PHE   251     -30.517  19.349  13.735  1.00129.72           C
ATOM   1945  CB  PHE   251     -31.875  19.693  13.126  1.00129.72           C
ATOM   1946  CG  PHE   251     -32.600  20.570  14.093  1.00129.72           C
ATOM   1947  CD1 PHE   251     -32.275  21.902  14.201  1.00129.72           C
ATOM   1948  CD2 PHE   251     -33.617  20.071  14.875  1.00129.72           C
ATOM   1949  CE1 PHE   251     -32.939  22.721  15.084  1.00129.72           C
ATOM   1950  CE2 PHE   251     -34.285  20.884  15.761  1.00129.72           C
ATOM   1951  CZ  PHE   251     -33.946  22.211  15.868  1.00129.72           C
ATOM   1952  C   PHE   251     -29.910  18.241  12.926  1.00129.72           C
ATOM   1953  O   PHE   251     -30.092  17.071  13.254  1.00129.72           O
ATOM   1954  N   PHE   252     -29.237  18.588  11.808  1.00150.63           N
ATOM   1955  CA  PHE   252     -28.623  17.666  10.884  1.00150.63           C
ATOM   1956  CB  PHE   252     -28.301  18.311   9.525  1.00150.63           C
ATOM   1957  CG  PHE   252     -29.597  18.484   8.812  1.00150.63           C
ATOM   1958  CD1 PHE   252     -30.422  19.547   9.096  1.00150.63           C
ATOM   1959  CD2 PHE   252     -29.987  17.576   7.854  1.00150.63           C
ATOM   1960  CE1 PHE   252     -31.618  19.702   8.436  1.00150.63           C
ATOM   1961  CE2 PHE   252     -31.181  17.725   7.191  1.00150.63           C
ATOM   1962  CZ  PHE   252     -31.999  18.790   7.481  1.00150.63           C
ATOM   1963  C   PHE   252     -27.361  17.037  11.399  1.00150.63           C
ATOM   1964  O   PHE   252     -27.089  15.874  11.111  1.00150.63           O
ATOM   1965  N   GLY   253     -26.550  17.777  12.173  1.00 47.42           N
ATOM   1966  CA  GLY   253     -25.242  17.303  12.532  1.00 47.42           C
ATOM   1967  C   GLY   253     -25.315  15.984  13.240  1.00 47.42           C
ATOM   1968  O   GLY   253     -24.495  15.106  12.980  1.00 47.42           O
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ATOM   1969  N   THR   254     -26.286  15.799  14.152  1.00117.12           N
ATOM   1970  CA  THR   254     -26.353  14.574  14.897  1.00117.12           C
ATOM   1971  CB  THR   254     -27.448  14.581  15.928  1.00117.12           C
ATOM   1972  OG1 THR   254     -27.357  13.422  16.743  1.00117.12           O
ATOM   1973  CG2 THR   254     -28.816  14.636  15.227  1.00117.12           C
ATOM   1974  C   THR   254     -26.582  13.422  13.965  1.00117.12           C
ATOM   1975  O   THR   254     -25.967  12.367  14.115  1.00117.12           O
ATOM   1976  N   SER   255     -27.479  13.585  12.974  1.00 74.37           N
ATOM   1977  CA  SER   255     -27.768  12.514  12.065  1.00 74.37           C
ATOM   1978  CB  SER   255     -28.899  12.847  11.076  1.00 74.37           C
ATOM   1979  OG  SER   255     -28.508  13.911  10.222  1.00 74.37           O
ATOM   1980  C   SER   255     -26.538  12.201  11.270  1.00 74.37           C
ATOM   1981  O   SER   255     -26.205  11.034  11.073  1.00 74.37           O
ATOM   1982  N   PHE   256     -25.825  13.241  10.794  1.00102.73           N
ATOM   1983  CA  PHE   256     -24.640  13.018  10.014  1.00102.73           C
ATOM   1984  CB  PHE   256     -23.989  14.312   9.493  1.00102.73           C
ATOM   1985  CG  PHE   256     -24.874  14.878   8.434  1.00102.73           C
ATOM   1986  CD1 PHE   256     -24.823  14.390   7.149  1.00102.73           C
ATOM   1987  CD2 PHE   256     -25.745  15.903   8.719  1.00102.73           C
ATOM   1988  CE1 PHE   256     -25.635  14.908   6.168  1.00102.73           C
ATOM   1989  CE2 PHE   256     -26.561  16.425   7.743  1.00102.73           C
ATOM   1990  CZ  PHE   256     -26.508  15.927   6.464  1.00102.73           C
ATOM   1991  C   PHE   256     -23.633  12.324  10.871  1.00102.73           C
ATOM   1992  O   PHE   256     -23.004  11.358  10.442  1.00102.73           O
ATOM   1993  N   CYS   257     -23.450  12.805  12.113  1.00109.41           N
ATOM   1994  CA  CYS   257     -22.470  12.221  12.980  1.00109.41           C
ATOM   1995  CB  CYS   257     -22.356  12.957  14.327  1.00109.41           C
ATOM   1996  SG  CYS   257     -21.112  12.211  15.421  1.00109.41           S
ATOM   1997  C   CYS   257     -22.829  10.801  13.281  1.00109.41           C
ATOM   1998  O   CYS   257     -22.001   9.900  13.152  1.00109.41           O
ATOM   1999  N   VAL   258     -24.096  10.561  13.672  1.00 76.64           N
ATOM   2000  CA  VAL   258     -24.525   9.238  14.033  1.00 76.64           C
ATOM   2001  CB  VAL   258     -25.953   9.197  14.489  1.00 76.64           C
ATOM   2002  CG1 VAL   258     -26.354   7.727  14.703  1.00 76.64           C
ATOM   2003  CG2 VAL   258     -26.093  10.069  15.748  1.00 76.64           C
ATOM   2004  C   VAL   258     -24.405   8.367  12.830  1.00 76.64           C
ATOM   2005  O   VAL   258     -23.938   7.232  12.919  1.00 76.64           O
ATOM   2006  N   ASP   259     -24.824   8.883  11.661  1.00192.04           N
ATOM   2007  CA  ASP   259     -24.740   8.081  10.479  1.00192.04           C
ATOM   2008  CB  ASP   259     -25.460   8.659   9.236  1.00192.04           C
ATOM   2009  CG  ASP   259     -24.812   9.927   8.695  1.00192.04           C
ATOM   2010  OD1 ASP   259     -23.579   9.924   8.437  1.00192.04           O
ATOM   2011  OD2 ASP   259     -25.565  10.920   8.513  1.00192.04           O
ATOM   2012  C   ASP   259     -23.295   7.852  10.198  1.00192.04           C
ATOM   2013  O   ASP   259     -22.925   6.834   9.637  1.00192.04           O
ATOM   2014  N   PHE   260     -22.408   8.793  10.546  1.00136.74           N
ATOM   2015  CA  PHE   260     -21.025   8.502  10.310  1.00136.74           C
ATOM   2016  CB  PHE   260     -20.107   9.656  10.753  1.00136.74           C
ATOM   2017  CG  PHE   260     -18.693   9.267  10.492  1.00136.74           C
ATOM   2018  CD1 PHE   260     -18.137   9.429   9.245  1.00136.74           C
ATOM   2019  CD2 PHE   260     -17.918   8.746  11.503  1.00136.74           C
ATOM   2020  CE1 PHE   260     -16.830   9.070   9.009  1.00136.74           C
ATOM   2021  CE2 PHE   260     -16.611   8.385  11.272  1.00136.74           C
ATOM   2022  CZ  PHE   260     -16.064   8.546  10.023  1.00136.74           C
ATOM   2023  C   PHE   260     -20.683   7.311  11.146  1.00136.74           C
ATOM   2024  O   PHE   260     -20.089   6.343  10.671  1.00136.74           O
ATOM   2025  N   SER   261     -21.107   7.344  12.421  1.00110.00           N
ATOM   2026  CA  SER   261     -20.774   6.311  13.354  1.00110.00           C
ATOM   2027  CB  SER   261     -21.333   6.580  14.762  1.00110.00           C
ATOM   2028  OG  SER   261     -20.737   7.748  15.306  1.00110.00           O
ATOM   2029  C   SER   261     -21.321   4.993  12.903  1.00110.00           C
ATOM   2030  O   SER   261     -20.625   3.985  12.969  1.00110.00           O
ATOM   2031  N   SER   262     -22.573   4.939  12.416  1.00 77.32           N
ATOM   2032  CA  SER   262     -23.112   3.645  12.088  1.00 77.32           C
ATOM   2033  CB  SER   262     -24.604   3.690  11.702  1.00 77.32           C
ATOM   2034  OG  SER   262     -25.377   4.142  12.804  1.00 77.32           O
ATOM   2035  C   SER   262     -22.295   2.999  11.002  1.00 77.32           C
ATOM   2036  O   SER   262     -21.882   1.853  11.163  1.00 77.32           O
ATOM   2037  N   PRO   263     -22.024   3.637   9.897  1.00237.37           N
ATOM   2038  CA  PRO   263     -21.142   2.966   8.998  1.00237.37           C
ATOM   2039  CD  PRO   263     -23.135   4.139   9.114  1.00237.37           C
ATOM   2040  CB  PRO   263     -21.180   3.773   7.710  1.00237.37           C
ATOM   2041  CG  PRO   263     -22.665   4.168   7.647  1.00237.37           C
ATOM   2042  C   PRO   263     -19.802   2.662   9.561  1.00237.37           C
ATOM   2043  O   PRO   263     -19.204   1.680   9.127  1.00237.37           O
ATOM   2044  N   SER   264     -19.288   3.468  10.504  1.00106.18           N
ATOM   2045  CA  SER   264     -18.022   3.072  11.033  1.00106.18           C
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ATOM   2046  CB  SER   264     -17.366   4.116  11.959  1.00106.18           C
ATOM   2047  OG  SER   264     -18.073   4.235  13.183  1.00106.18           O
ATOM   2048  C   SER   264     -18.246   1.811  11.808  1.00106.18           C
ATOM   2049  O   SER   264     -17.439   0.885  11.756  1.00106.18           O
ATOM   2050  N   THR   265     -19.373   1.734  12.543  1.00247.51           N
ATOM   2051  CA  THR   265     -19.641   0.556  13.314  1.00247.51           C
ATOM   2052  CB  THR   265     -19.998   0.860  14.744  1.00247.51           C
ATOM   2053  OG1 THR   265     -21.146   1.694  14.808  1.00247.51           O
ATOM   2054  CG2 THR   265     -18.801   1.561  15.410  1.00247.51           C
ATOM   2055  C   THR   265     -20.786  -0.173  12.682  1.00247.51           C
ATOM   2056  O   THR   265     -21.954   0.080  12.972  1.00247.51           O
ATOM   2057  N   HIS   266     -20.472  -1.164  11.831  1.00209.49           N
ATOM   2058  CA  HIS   266     -21.499  -1.879  11.131  1.00209.49           C
ATOM   2059  ND1 HIS   266     -22.514  -3.449   8.316  1.00209.49           N
ATOM   2060  CG  HIS   266     -21.997  -3.790   9.548  1.00209.49           C
ATOM   2061  CB  HIS   266     -20.935  -3.019  10.270  1.00209.49           C
ATOM   2062  NE2 HIS   266     -23.564  -5.303   8.958  1.00209.49           N
ATOM   2063  CD2 HIS   266     -22.649  -4.921   9.924  1.00209.49           C
ATOM   2064  CE1 HIS   266     -23.444  -4.386   8.013  1.00209.49           C
ATOM   2065  C   HIS   266     -22.427  -2.497  12.122  1.00209.49           C
ATOM   2066  O   HIS   266     -23.644  -2.354  12.022  1.00209.49           O
ATOM   2067  N   SER   267     -21.891  -3.208  13.124  1.00150.04           N
ATOM   2068  CA  SER   267     -22.793  -3.745  14.092  1.00150.04           C
ATOM   2069  CB  SER   267     -22.255  -5.004  14.785  1.00150.04           C
ATOM   2070  OG  SER   267     -22.061  -6.024  13.818  1.00150.04           O
ATOM   2071  C   SER   267     -22.921  -2.676  15.118  1.00150.04           C
ATOM   2072  O   SER   267     -21.939  -2.288  15.747  1.00150.04           O
ATOM   2073  N   ALA   268     -24.144  -2.159  15.319  1.00108.69           N
ATOM   2074  CA  ALA   268     -24.233  -1.065  16.234  1.00108.69           C
ATOM   2075  CB  ALA   268     -24.486   0.287  15.545  1.00108.69           C
ATOM   2076  C   ALA   268     -25.357  -1.289  17.182  1.00108.69           C
ATOM   2077  O   ALA   268     -26.339  -1.962  16.877  1.00108.69           O
ATOM   2078  N   GLN   269     -25.196  -0.708  18.383  1.00141.31           N
ATOM   2079  CA  GLN   269     -26.137  -0.772  19.457  1.00141.31           C
ATOM   2080  CB  GLN   269     -25.619  -0.098  20.739  1.00141.31           C
ATOM   2081  CG  GLN   269     -26.621  -0.148  21.895  1.00141.31           C
ATOM   2082  CD  GLN   269     -26.046   0.641  23.064  1.00141.31           C
ATOM   2083  OE1 GLN   269     -24.872   0.509  23.403  1.00141.31           O
ATOM   2084  NE2 GLN   269     -26.896   1.498  23.693  1.00141.31           N
ATOM   2085  C   GLN   269     -27.377  -0.035  19.071  1.00141.31           C
ATOM   2086  O   GLN   269     -28.476  -0.433  19.447  1.00141.31           O
ATOM   2087  N   LYS   270     -27.226   1.059  18.300  1.00251.37           N
ATOM   2088  CA  LYS   270     -28.302   1.962  17.995  1.00251.37           C
ATOM   2089  CB  LYS   270     -27.918   3.022  16.942  1.00251.37           C
ATOM   2090  CG  LYS   270     -28.853   4.232  16.886  1.00251.37           C
ATOM   2091  CD  LYS   270     -30.257   3.936  16.364  1.00251.37           C
ATOM   2092  CE  LYS   270     -30.365   4.083  14.845  1.00251.37           C
ATOM   2093  NZ  LYS   270     -30.193   5.501  14.462  1.00251.37           N
ATOM   2094  C   LYS   270     -29.517   1.215  17.530  1.00251.37           C
ATOM   2095  O   LYS   270     -29.436   0.224  16.806  1.00251.37           O
ATOM   2096  N   ASP   271     -30.689   1.680  18.008  1.00163.96           N
ATOM   2097  CA  ASP   271     -31.971   1.097  17.730  1.00163.96           C
ATOM   2098  CB  ASP   271     -32.948   1.194  18.913  1.00163.96           C
ATOM   2099  CG  ASP   271     -32.435   0.294  20.033  1.00163.96           C
ATOM   2100  OD1 ASP   271     -31.510  -0.516  19.761  1.00163.96           O
ATOM   2101  OD2 ASP   271     -32.960   0.401  21.174  1.00163.96           O
ATOM   2102  C   ASP   271     -32.601   1.829  16.584  1.00163.96           C
ATOM   2103  O   ASP   271     -32.000   1.997  15.526  1.00163.96           O
ATOM   2104  N   THR   272     -33.868   2.255  16.776  1.00312.69           N
ATOM   2105  CA  THR   272     -34.610   2.953  15.763  1.00312.69           C
ATOM   2106  CB  THR   272     -36.052   3.176  16.121  1.00312.69           C
ATOM   2107  OG1 THR   272     -36.153   4.004  17.270  1.00312.69           O
ATOM   2108  CG2 THR   272     -36.713   1.812  16.389  1.00312.69           C
ATOM   2109  C   THR   272     -33.970   4.297  15.569  1.00312.69           C
ATOM   2110  O   THR   272     -33.022   4.632  16.273  1.00312.69           O
ATOM   2111  N   VAL   273     -34.484   5.103  14.608  1.00510.13           N
ATOM   2112  CA  VAL   273     -33.837   6.326  14.211  1.00510.13           C
ATOM   2113  CB  VAL   273     -33.981   6.601  12.733  1.00510.13           C
ATOM   2114  CG1 VAL   273     -35.467   6.667  12.326  1.00510.13           C
ATOM   2115  CG2 VAL   273     -33.164   7.860  12.427  1.00510.13           C
ATOM   2116  C   VAL   273     -34.300   7.556  14.947  1.00510.13           C
ATOM   2117  O   VAL   273     -35.230   8.245  14.536  1.00510.13           O
ATOM   2118  N   ALA   274     -33.632   7.895  16.064  1.00164.10           N
ATOM   2119  CA  ALA   274     -33.943   9.118  16.750  1.00164.10           C
ATOM   2120  CB  ALA   274     -33.259   9.212  18.125  1.00164.10           C
ATOM   2121  C   ALA   274     -33.479  10.287  15.926  1.00164.10           C
ATOM   2122  O   ALA   274     -34.186  11.282  15.768  1.00164.10           O
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ATOM   2123  N   SER   275     -32.261  10.164  15.363  1.00131.64           N
ATOM   2124  CA  SER   275     -31.587  11.216  14.655  1.00131.64           C
ATOM   2125  CB  SER   275     -30.164  10.808  14.231  1.00131.64           C
ATOM   2126  OG  SER   275     -30.217   9.699  13.345  1.00131.64           O
ATOM   2127  C   SER   275     -32.327  11.620  13.419  1.00131.64           C
ATOM   2128  O   SER   275     -32.475  12.814  13.163  1.00131.64           O
ATOM   2129  N   VAL   276     -32.801  10.653  12.607  1.00650.36           N
ATOM   2130  CA  VAL   276     -33.464  11.043  11.392  1.00650.36           C
ATOM   2131  CB  VAL   276     -33.945   9.944  10.492  1.00650.36           C
ATOM   2132  CG1 VAL   276     -34.867  10.563   9.425  1.00650.36           C
ATOM   2133  CG2 VAL   276     -32.715   9.257   9.873  1.00650.36           C
ATOM   2134  C   VAL   276     -34.702  11.799  11.710  1.00650.36           C
ATOM   2135  O   VAL   276     -34.993  12.805  11.070  1.00650.36           O
ATOM   2136  N   MET   277     -35.475  11.333  12.704  1.00318.15           N
ATOM   2137  CA  MET   277     -36.721  11.989  12.985  1.00318.15           C
ATOM   2138  CB  MET   277     -37.585  11.298  14.057  1.00318.15           C
ATOM   2139  CG  MET   277     -36.953  11.332  15.453  1.00318.15           C
ATOM   2140  SD  MET   277     -37.931  10.527  16.756  1.00318.15           S
ATOM   2141  CE  MET   277     -39.152  11.861  16.921  1.00318.15           C
ATOM   2142  C   MET   277     -36.440  13.385  13.451  1.00318.15           C
ATOM   2143  O   MET   277     -37.213  14.299  13.178  1.00318.15           O
ATOM   2144  N   TYR   278     -35.332  13.585  14.188  1.00175.24           N
ATOM   2145  CA  TYR   278     -34.984  14.870  14.731  1.00175.24           C
ATOM   2146  CB  TYR   278     -33.732  14.771  15.620  1.00175.24           C
ATOM   2147  CG  TYR   278     -33.403  16.106  16.192  1.00175.24           C
ATOM   2148  CD1 TYR   278     -34.170  16.631  17.206  1.00175.24           C
ATOM   2149  CD2 TYR   278     -32.313  16.816  15.741  1.00175.24           C
ATOM   2150  CE1 TYR   278     -33.872  17.858  17.748  1.00175.24           C
ATOM   2151  CE2 TYR   278     -32.010  18.043  16.281  1.00175.24           C
ATOM   2152  CZ  TYR   278     -32.790  18.566  17.284  1.00175.24           C
ATOM   2153  OH  TYR   278     -32.480  19.825  17.840  1.00175.24           O
ATOM   2154  C   TYR   278     -34.712  15.841  13.613  1.00175.24           C
ATOM   2155  O   TYR   278     -35.134  16.998  13.661  1.00175.24           O
ATOM   2156  N   THR   279     -34.003  15.389  12.565  1.00679.25           N
ATOM   2157  CA  THR   279     -33.664  16.257  11.471  1.00679.25           C
ATOM   2158  CB  THR   279     -32.791  15.616  10.430  1.00679.25           C
ATOM   2159  OG1 THR   279     -32.219  16.615   9.598  1.00679.25           O
ATOM   2160  CG2 THR   279     -33.648  14.670   9.572  1.00679.25           C
ATOM   2161  C   THR   279     -34.928  16.676  10.799  1.00679.25           C
ATOM   2162  O   THR   279     -35.043  17.783  10.278  1.00679.25           O
ATOM   2163  N   VAL   280     -35.922  15.782  10.832  1.00355.87           N
ATOM   2164  CA  VAL   280     -37.184  15.930  10.176  1.00355.87           C
ATOM   2165  CB  VAL   280     -38.068  14.756  10.488  1.00355.87           C
ATOM   2166  CG1 VAL   280     -39.158  15.196  11.481  1.00355.87           C
ATOM   2167  CG2 VAL   280     -38.487  14.046   9.193  1.00355.87           C
ATOM   2168  C   VAL   280     -37.842  17.175  10.722  1.00355.87           C
ATOM   2169  O   VAL   280     -38.641  17.804  10.034  1.00355.87           O
ATOM   2170  N   VAL   281     -37.550  17.535  11.993  1.00394.60           N
ATOM   2171  CA  VAL   281     -38.104  18.671  12.698  1.00394.60           C
ATOM   2172  CB  VAL   281     -37.679  18.734  14.137  1.00394.60           C
ATOM   2173  CG1 VAL   281     -38.232  20.030  14.753  1.00394.60           C
ATOM   2174  CG2 VAL   281     -38.151  17.454  14.847  1.00394.60           C
ATOM   2175  C   VAL   281     -37.674  19.959  12.080  1.00394.60           C
ATOM   2176  O   VAL   281     -38.408  20.948  12.116  1.00394.60           O
ATOM   2177  N   THR   282     -36.464  19.992  11.500  1.00688.80           N
ATOM   2178  CA  THR   282     -36.004  21.235  10.957  1.00688.80           C
ATOM   2179  CB  THR   282     -34.628  21.258  10.340  1.00688.80           C
ATOM   2180  OG1 THR   282     -34.398  20.151   9.482  1.00688.80           O
ATOM   2181  CG2 THR   282     -33.576  21.372  11.436  1.00688.80           C
ATOM   2182  C   THR   282     -36.963  21.757   9.943  1.00688.80           C
ATOM   2183  O   THR   282     -37.084  22.974   9.840  1.00688.80           O
ATOM   2184  N   PRO   283     -37.664  20.942   9.206  1.00553.46           N
ATOM   2185  CA  PRO   283     -38.577  21.505   8.261  1.00553.46           C
ATOM   2186  CD  PRO   283     -37.097  19.710   8.683  1.00553.46           C
ATOM   2187  CB  PRO   283     -39.112  20.325   7.459  1.00553.46           C
ATOM   2188  CG  PRO   283     -37.892  19.387   7.404  1.00553.46           C
ATOM   2189  C   PRO   283     -39.593  22.422   8.871  1.00553.46           C
ATOM   2190  O   PRO   283     -40.184  23.197   8.123  1.00553.46           O
ATOM   2191  N   MET   284     -39.906  22.278  10.173  1.00443.99           N
ATOM   2192  CA  MET   284     -40.786  23.176  10.881  1.00443.99           C
ATOM   2193  CB  MET   284     -41.339  22.533  12.165  1.00443.99           C
ATOM   2194  CG  MET   284     -42.488  23.299  12.825  1.00443.99           C
ATOM   2195  SD  MET   284     -42.014  24.826  13.689  1.00443.99           S
ATOM   2196  CE  MET   284     -43.702  25.229  14.221  1.00443.99           C
ATOM   2197  C   MET   284     -40.147  24.494  11.269  1.00443.99           C
ATOM   2198  O   MET   284     -40.786  25.543  11.204  1.00443.99           O
ATOM   2199  N   LEU   285     -38.861  24.482  11.681  1.00311.94           N
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ATOM	2200	CA	LEU	285	-38.266	25.630	12.322	1.00311.94	C
ATOM	2201	CB	LEU	285	-36.878	25.392	12.927	1.00311.94	C
ATOM	2202	CG	LEU	285	-36.442	26.640	13.714	1.00311.94	C
ATOM	2203	CD1	LEU	285	-37.357	26.834	14.934	1.00311.94	C
ATOM	2204	CD2	LEU	285	-34.949	26.630	14.068	1.00311.94	C
ATOM	2205	C	LEU	285	-38.103	26.837	11.457	1.00311.94	C
ATOM	2206	O	LEU	285	-38.248	27.955	11.943	1.00311.94	O
ATOM	2207	N	ASN	286	-37.785	26.667	10.167	1.00309.73	N
ATOM	2208	CA	ASN	286	-37.434	27.803	9.365	1.00309.73	C
ATOM	2209	CB	ASN	286	-37.123	27.427	7.906	1.00309.73	C
ATOM	2210	CG	ASN	286	-36.724	28.691	7.160	1.00309.73	C
ATOM	2211	OD1	ASN	286	-37.549	29.565	6.903	1.00309.73	O
ATOM	2212	ND2	ASN	286	-35.420	28.796	6.794	1.00309.73	N
ATOM	2213	C	ASN	286	-38.524	28.825	9.352	1.00309.73	C
ATOM	2214	O	ASN	286	-38.219	30.009	9.469	1.00309.73	O
ATOM	2215	N	PRO	287	-39.769	28.476	9.205	1.00286.55	N
ATOM	2216	CA	PRO	287	-40.778	29.494	9.194	1.00286.55	C
ATOM	2217	CD	PRO	287	-40.175	27.307	8.448	1.00286.55	C
ATOM	2218	CB	PRO	287	-42.070	28.802	8.743	1.00286.55	C
ATOM	2219	CG	PRO	287	-41.701	27.305	8.631	1.00286.55	C
ATOM	2220	C	PRO	287	-40.843	30.219	10.495	1.00286.55	C
ATOM	2221	O	PRO	287	-41.118	31.418	10.496	1.00286.55	O
ATOM	2222	N	PHE	288	-40.592	29.514	11.609	1.00217.14	N
ATOM	2223	CA	PHE	288	-40.642	30.117	12.905	1.00217.14	C
ATOM	2224	CB	PHE	288	-40.478	29.060	14.013	1.00217.14	C
ATOM	2225	CG	PHE	288	-40.560	29.695	15.358	1.00217.14	C
ATOM	2226	CD1	PHE	288	-41.775	29.822	15.989	1.00217.14	C
ATOM	2227	CD2	PHE	288	-39.428	30.154	15.992	1.00217.14	C
ATOM	2228	CE1	PHE	288	-41.865	30.402	17.233	1.00217.14	C
ATOM	2229	CE2	PHE	288	-39.512	30.732	17.235	1.00217.14	C
ATOM	2230	CZ	PHE	288	-40.731	30.858	17.858	1.00217.14	C
ATOM	2231	C	PHE	288	-39.526	31.109	13.011	1.00217.14	C
ATOM	2232	O	PHE	288	-39.721	32.244	13.445	1.00217.14	O
ATOM	2233	N	ILE	289	-38.320	30.693	12.591	1.00212.93	N
ATOM	2234	CA	ILE	289	-37.140	31.501	12.700	1.00212.93	C
ATOM	2235	CB	ILE	289	-35.900	30.726	12.338	1.00212.93	C
ATOM	2236	CG2	ILE	289	-35.878	30.455	10.825	1.00212.93	C
ATOM	2237	CG1	ILE	289	-34.643	31.437	12.845	1.00212.93	C
ATOM	2238	CD1	ILE	289	-33.416	30.534	12.763	1.00212.93	C
ATOM	2239	C	ILE	289	-37.268	32.700	11.819	1.00212.93	C
ATOM	2240	O	ILE	289	-36.898	33.805	12.210	1.00212.93	O
ATOM	2241	N	TYR	290	-37.801	32.505	10.599	1.00238.07	N
ATOM	2242	CA	TYR	290	-37.899	33.564	9.641	1.00238.07	C
ATOM	2243	CB	TYR	290	-38.387	33.032	8.281	1.00238.07	C
ATOM	2244	CG	TYR	290	-37.966	33.976	7.208	1.00238.07	C
ATOM	2245	CD1	TYR	290	-36.626	34.161	6.956	1.00238.07	C
ATOM	2246	CD2	TYR	290	-38.883	34.632	6.423	1.00238.07	C
ATOM	2247	CE1	TYR	290	-36.198	35.010	5.965	1.00238.07	C
ATOM	2248	CE2	TYR	290	-38.461	35.484	5.428	1.00238.07	C
ATOM	2249	CZ	TYR	290	-37.120	35.678	5.198	1.00238.07	C
ATOM	2250	OH	TYR	290	-36.691	36.551	4.175	1.00238.07	O
ATOM	2251	C	TYR	290	-38.860	34.566	10.180	1.00238.07	C
ATOM	2252	O	TYR	290	-38.651	35.773	10.080	1.00238.07	O
ATOM	2253	N	SER	291	-39.963	34.079	10.768	1.00143.72	N
ATOM	2254	CA	SER	291	-40.985	34.960	11.247	1.00143.72	C
ATOM	2255	CB	SER	291	-42.212	34.197	11.772	1.00143.72	C
ATOM	2256	OG	SER	291	-42.791	33.435	10.723	1.00143.72	O
ATOM	2257	C	SER	291	-40.478	35.818	12.366	1.00143.72	C
ATOM	2258	O	SER	291	-40.683	37.030	12.361	1.00143.72	O
ATOM	2259	N	LEU	292	-39.789	35.223	13.357	1.00 82.26	N
ATOM	2260	CA	LEU	292	-39.392	36.012	14.489	1.00 82.26	C
ATOM	2261	CB	LEU	292	-38.625	35.216	15.558	1.00 82.26	C
ATOM	2262	CG	LEU	292	-39.438	34.108	16.247	1.00 82.26	C
ATOM	2263	CD1	LEU	292	-38.667	33.545	17.451	1.00 82.26	C
ATOM	2264	CD2	LEU	292	-40.856	34.579	16.603	1.00 82.26	C
ATOM	2265	C	LEU	292	-38.453	37.087	14.060	1.00 82.26	C
ATOM	2266	O	LEU	292	-38.617	38.252	14.416	1.00 82.26	O
ATOM	2267	N	ARG	293	-37.437	36.697	13.277	1.00241.49	N
ATOM	2268	CA	ARG	293	-36.368	37.547	12.852	1.00241.49	C
ATOM	2269	CB	ARG	293	-35.175	36.767	12.272	1.00241.49	C
ATOM	2270	CG	ARG	293	-34.461	35.893	13.307	1.00241.49	C
ATOM	2271	CD	ARG	293	-33.764	36.682	14.419	1.00241.49	C
ATOM	2272	NE	ARG	293	-34.795	36.977	15.451	1.00241.49	N
ATOM	2273	CZ	ARG	293	-34.435	37.493	16.661	1.00241.49	C
ATOM	2274	NH1	ARG	293	-33.124	37.770	16.926	1.00241.49	N
ATOM	2275	NH2	ARG	293	-35.390	37.730	17.606	1.00241.49	N
ATOM	2276	C	ARG	293	-36.780	38.570	11.843	1.00241.49	C

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ATOM   2277  O   ARG   293     -36.178  39.641  11.797  1.00241.49           O
ATOM   2278  N   ASN   294     -37.777  38.275  10.985  1.00210.68           N
ATOM   2279  CA  ASN   294     -38.045  39.190   9.914  1.00210.68           C
ATOM   2280  CB  ASN   294     -38.152  38.439   8.572  1.00210.68           C
ATOM   2281  CG  ASN   294     -37.808  39.375   7.425  1.00210.68           C
ATOM   2282  OD1 ASN   294     -38.622  39.617   6.536  1.00210.68           O
ATOM   2283  ND2 ASN   294     -36.556  39.907   7.436  1.00210.68           N
ATOM   2284  C   ASN   294     -39.326  39.925  10.174  1.00210.68           C
ATOM   2285  O   ASN   294     -40.403  39.339  10.249  1.00210.68           O
ATOM   2286  N   GLN   295     -39.221  41.257  10.335  1.00112.93           N
ATOM   2287  CA  GLN   295     -40.357  42.096  10.571  1.00112.93           C
ATOM   2288  CB  GLN   295     -39.958  43.531  10.947  1.00112.93           C
ATOM   2289  CG  GLN   295     -39.307  43.626  12.329  1.00112.93           C
ATOM   2290  CD  GLN   295     -37.994  42.856  12.312  1.00112.93           C
ATOM   2291  OE1 GLN   295     -37.844  41.853  13.008  1.00112.93           O
ATOM   2292  NE2 GLN   295     -37.015  43.334  11.498  1.00112.93           N
ATOM   2293  C   GLN   295     -41.197  42.153   9.331  1.00112.93           C
ATOM   2294  O   GLN   295     -42.423  42.147   9.401  1.00112.93           O
ATOM   2295  N   GLU   296     -40.547  42.206   8.154  1.00125.54           N
ATOM   2296  CA  GLU   296     -41.252  42.347   6.912  1.00125.54           C
ATOM   2297  CB  GLU   296     -40.290  42.384   5.711  1.00125.54           C
ATOM   2298  CG  GLU   296     -40.922  42.871   4.407  1.00125.54           C
ATOM   2299  CD  GLU   296     -40.789  44.385   4.375  1.00125.54           C
ATOM   2300  OE1 GLU   296     -40.147  44.940   5.305  1.00125.54           O
ATOM   2301  OE2 GLU   296     -41.316  45.008   3.418  1.00125.54           O
ATOM   2302  C   GLU   296     -42.139  41.162   6.719  1.00125.54           C
ATOM   2303  O   GLU   296     -43.319  41.302   6.402  1.00125.54           O
ATOM   2304  N   ILE   297     -41.584  39.950   6.905  1.00149.59           N
ATOM   2305  CA  ILE   297     -42.382  38.780   6.707  1.00149.59           C
ATOM   2306  CB  ILE   297     -41.635  37.486   6.740  1.00149.59           C
ATOM   2307  CG2 ILE   297     -40.550  37.553   5.654  1.00149.59           C
ATOM   2308  CG1 ILE   297     -41.088  37.203   8.140  1.00149.59           C
ATOM   2309  CD1 ILE   297     -40.833  35.718   8.345  1.00149.59           C
ATOM   2310  C   ILE   297     -43.405  38.715   7.791  1.00149.59           C
ATOM   2311  O   ILE   297     -44.553  38.344   7.560  1.00149.59           O
ATOM   2312  N   LYS   298     -43.001  39.080   9.019  1.00158.17           N
ATOM   2313  CA  LYS   298     -43.866  38.961  10.151  1.00158.17           C
ATOM   2314  CB  LYS   298     -43.176  39.418  11.449  1.00158.17           C
ATOM   2315  CG  LYS   298     -43.875  38.967  12.731  1.00158.17           C
ATOM   2316  CD  LYS   298     -45.239  39.611  12.962  1.00158.17           C
ATOM   2317  CE  LYS   298     -45.141  40.986  13.621  1.00158.17           C
ATOM   2318  NZ  LYS   298     -44.483  40.859  14.941  1.00158.17           N
ATOM   2319  C   LYS   298     -45.067  39.807   9.887  1.00158.17           C
ATOM   2320  O   LYS   298     -46.192  39.417  10.195  1.00158.17           O
ATOM   2321  N   SER   299     -44.855  40.991   9.289  1.00 82.28           N
ATOM   2322  CA  SER   299     -45.946  41.862   8.979  1.00 82.28           C
ATOM   2323  CB  SER   299     -45.486  43.161   8.299  1.00 82.28           C
ATOM   2324  OG  SER   299     -46.613  43.945   7.940  1.00 82.28           O
ATOM   2325  C   SER   299     -46.848  41.169   8.010  1.00 82.28           C
ATOM   2326  O   SER   299     -48.064  41.135   8.191  1.00 82.28           O
ATOM   2327  N   SER   300     -46.264  40.573   6.955  1.00 96.81           N
ATOM   2328  CA  SER   300     -47.072  39.965   5.944  1.00 96.81           C
ATOM   2329  CB  SER   300     -46.257  39.450   4.747  1.00 96.81           C
ATOM   2330  OG  SER   300     -47.143  39.109   3.691  1.00 96.81           O
ATOM   2331  C   SER   300     -47.820  38.820   6.549  1.00 96.81           C
ATOM   2332  O   SER   300     -48.979  38.585   6.215  1.00 96.81           O
ATOM   2333  N   LEU   301     -47.170  38.075   7.460  1.00 64.75           N
ATOM   2334  CA  LEU   301     -47.805  36.952   8.084  1.00 64.75           C
ATOM   2335  CB  LEU   301     -46.856  36.170   9.004  1.00 64.75           C
ATOM   2336  CG  LEU   301     -45.649  35.562   8.265  1.00 64.75           C
ATOM   2337  CD1 LEU   301     -44.732  34.794   9.229  1.00 64.75           C
ATOM   2338  CD2 LEU   301     -46.099  34.713   7.066  1.00 64.75           C
ATOM   2339  C   LEU   301     -48.942  37.439   8.927  1.00 64.75           C
ATOM   2340  O   LEU   301     -50.039  36.890   8.867  1.00 64.75           O
ATOM   2341  N   ARG   302     -48.728  38.516   9.708  1.00181.67           N
ATOM   2342  CA  ARG   302     -49.738  38.986  10.615  1.00181.67           C
ATOM   2343  CB  ARG   302     -49.327  40.263  11.360  1.00181.67           C
ATOM   2344  CG  ARG   302     -48.029  40.104  12.153  1.00181.67           C
ATOM   2345  CD  ARG   302     -48.204  39.550  13.568  1.00181.67           C
ATOM   2346  NE  ARG   302     -48.747  40.644  14.421  1.00181.67           N
ATOM   2347  CZ  ARG   302     -48.371  40.741  15.731  1.00181.67           C
ATOM   2348  NH1 ARG   302     -47.480  39.848  16.255  1.00181.67           N
ATOM   2349  NH2 ARG   302     -48.875  41.738  16.514  1.00181.67           N
ATOM   2350  C   ARG   302     -50.930  39.334   9.805  1.00181.67           C
ATOM   2351  O   ARG   302     -52.060  39.035  10.187  1.00181.67           O
ATOM   2352  N   LYS   303     -50.706  39.986   8.654  1.00 81.22           N
ATOM   2353  CA  LYS   303     -51.813  40.344   7.827  1.00 81.22           C
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ATOM   2354  CB  LYS   303     -51.397  41.098   6.551  1.00 81.22           C
ATOM   2355  CG  LYS   303     -50.840  42.502   6.801  1.00 81.22           C
ATOM   2356  CD  LYS   303     -50.120  43.089   5.585  1.00 81.22           C
ATOM   2357  CE  LYS   303     -49.608  44.514   5.797  1.00 81.22           C
ATOM   2358  NZ  LYS   303     -50.749  45.457   5.848  1.00 81.22           N
ATOM   2359  C   LYS   303     -52.474  39.075   7.399  1.00 81.22           C
ATOM   2360  O   LYS   303     -53.698  38.992   7.343  1.00 81.22           O
ATOM   2361  N   LEU   304     -51.674  38.045   7.070  1.00116.24           N
ATOM   2362  CA  LEU   304     -52.239  36.822   6.581  1.00116.24           C
ATOM   2363  CB  LEU   304     -51.134  35.867   6.079  1.00116.24           C
ATOM   2364  CG  LEU   304     -51.589  34.654   5.238  1.00116.24           C
ATOM   2365  CD1 LEU   304     -50.378  33.806   4.825  1.00116.24           C
ATOM   2366  CD2 LEU   304     -52.671  33.808   5.929  1.00116.24           C
ATOM   2367  C   LEU   304     -53.046  36.151   7.664  1.00116.24           C
ATOM   2368  O   LEU   304     -54.191  35.770   7.426  1.00116.24           O
ATOM   2369  N   ILE   305     -52.496  36.007   8.893  1.00110.00           N
ATOM   2370  CA  ILE   305     -53.214  35.288   9.914  1.00110.00           C
ATOM   2371  CB  ILE   305     -52.435  35.088  11.185  1.00110.00           C
ATOM   2372  CG2 ILE   305     -53.440  34.708  12.284  1.00110.00           C
ATOM   2373  CG1 ILE   305     -51.324  34.035  10.997  1.00110.00           C
ATOM   2374  CD1 ILE   305     -50.222  34.416  10.013  1.00110.00           C
ATOM   2375  C   ILE   305     -54.468  36.014  10.241  1.00110.00           C
ATOM   2376  O   ILE   305     -55.550  35.432  10.198  1.00110.00           O
ATOM   2377  N   TRP   306     -54.379  37.317  10.550  1.00154.53           N
ATOM   2378  CA  TRP   306     -55.622  37.994  10.733  1.00154.53           C
ATOM   2379  CB  TRP   306     -55.518  39.228  11.645  1.00154.53           C
ATOM   2380  CG  TRP   306     -55.091  38.934  13.066  1.00154.53           C
ATOM   2381  CD2 TRP   306     -53.734  39.036  13.525  1.00154.53           C
ATOM   2382  CD1 TRP   306     -55.839  38.571  14.149  1.00154.53           C
ATOM   2383  NE1 TRP   306     -55.030  38.433  15.252  1.00154.53           N
ATOM   2384  CE2 TRP   306     -53.732  38.720  14.883  1.00154.53           C
ATOM   2385  CE3 TRP   306     -52.585  39.373  12.869  1.00154.53           C
ATOM   2386  CZ2 TRP   306     -52.574  38.735  15.607  1.00154.53           C
ATOM   2387  CZ3 TRP   306     -51.419  39.383  13.600  1.00154.53           C
ATOM   2388  CH2 TRP   306     -51.414  39.070  14.944  1.00154.53           C
ATOM   2389  C   TRP   306     -55.869  38.449   9.344  1.00154.53           C
ATOM   2390  O   TRP   306     -55.525  39.573   8.987  1.00154.53           O
ATOM   2391  N   VAL   307     -56.555  37.593   8.561  1.00131.44           N
ATOM   2392  CA  VAL   307     -56.574  37.709   7.131  1.00131.44           C
ATOM   2393  CB  VAL   307     -57.554  36.768   6.496  1.00131.44           C
ATOM   2394  CG1 VAL   307     -57.543  37.002   4.976  1.00131.44           C
ATOM   2395  CG2 VAL   307     -57.191  35.331   6.910  1.00131.44           C
ATOM   2396  C   VAL   307     -56.927  39.083   6.692  1.00131.44           C
ATOM   2397  O   VAL   307     -56.170  39.709   5.953  1.00131.44           O
ATOM   2398  N   ARG   308     -58.074  39.610   7.128  1.00202.00           N
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ATOM   2401  CG  ARG   308     -60.907  40.693   6.338  1.00202.00           C
ATOM   2402  CD  ARG   308     -62.250  41.402   6.505  1.00202.00           C
ATOM   2403  NE  ARG   308     -61.972  42.866   6.441  1.00202.00           N
ATOM   2404  CZ  ARG   308     -61.835  43.488   5.233  1.00202.00           C
ATOM   2405  NH1 ARG   308     -61.942  42.772   4.076  1.00202.00           N
ATOM   2406  NH2 ARG   308     -61.588  44.830   5.182  1.00202.00           N
ATOM   2407  C   ARG   308     -57.426  41.889   7.333  1.00202.00           C
ATOM   2408  O   ARG   308     -56.874  42.775   6.682  1.00202.00           O
ATOM   2409  N   LYS   309     -57.154  41.652   8.626  1.00287.29           N
ATOM   2410  CA  LYS   309     -56.498  42.588   9.488  1.00287.29           C
ATOM   2411  CB  LYS   309     -56.054  42.007  10.839  1.00287.29           C
ATOM   2412  CG  LYS   309     -55.393  43.048  11.745  1.00287.29           C
ATOM   2413  CD  LYS   309     -55.203  42.592  13.193  1.00287.29           C
ATOM   2414  CE  LYS   309     -54.526  43.644  14.077  1.00287.29           C
ATOM   2415  NZ  LYS   309     -54.505  43.192  15.485  1.00287.29           N
ATOM   2416  C   LYS   309     -55.321  43.263   8.890  1.00287.29           C
ATOM   2417  O   LYS   309     -54.582  42.714   8.076  1.00287.29           O
ATOM   2418  N   ILE   310     -55.175  44.540   9.296  1.00271.68           N
ATOM   2419  CA  ILE   310     -54.065  45.365   8.949  1.00271.68           C
ATOM   2420  CB  ILE   310     -54.264  46.821   9.253  1.00271.68           C
ATOM   2421  CG2 ILE   310     -52.914  47.530   9.051  1.00271.68           C
ATOM   2422  CG1 ILE   310     -55.400  47.400   8.395  1.00271.68           C
ATOM   2423  CD1 ILE   310     -56.773  46.818   8.725  1.00271.68           C
ATOM   2424  C   ILE   310     -52.955  44.870   9.807  1.00271.68           C
ATOM   2425  O   ILE   310     -53.174  44.449  10.940  1.00271.68           O
ATOM   2426  N   HIS   311     -51.727  44.878   9.272  1.00176.98           N
ATOM   2427  CA  HIS   311     -50.635  44.318  10.007  1.00176.98           C
ATOM   2428  ND1 HIS   311     -49.255  46.502   7.992  1.00176.98           N
ATOM   2429  CG  HIS   311     -48.721  45.607   8.889  1.00176.98           C
ATOM   2430  CB  HIS   311     -49.319  44.271   9.212  1.00176.98           C
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ATOM   2431  NE2 HIS   311     -47.390  47.423   8.775  1.00176.98           N
ATOM   2432  CD2 HIS   311     -47.584  46.183   9.359  1.00176.98           C
ATOM   2433  CE1 HIS   311     -48.419  47.570   7.962  1.00176.98           C
ATOM   2434  C   HIS   311     -50.440  45.087  11.267  1.00176.98           C
ATOM   2435  O   HIS   311     -50.065  44.509  12.286  1.00176.98           O
ATOM   2436  N   SER   312     -50.677  46.414  11.211  1.00159.20           N
ATOM   2437  CA  SER   312     -50.596  47.272  12.361  1.00159.20           C
ATOM   2438  CB  SER   312     -51.772  47.101  13.340  1.00159.20           C
ATOM   2439  OG  SER   312     -51.758  45.798  13.905  1.00159.20           O
ATOM   2440  C   SER   312     -49.325  47.010  13.097  1.00159.20           C
ATOM   2441  O   SER   312     -49.330  46.603  14.258  1.00159.20           O
ATOM   2442  N   PRO   313     -48.245  47.235  12.401  1.00 75.88           N
ATOM   2443  CA  PRO   313     -46.931  46.992  12.934  1.00 75.88           C
ATOM   2444  CD  PRO   313     -48.232  48.332  11.446  1.00 75.88           C
ATOM   2445  CB  PRO   313     -45.967  47.623  11.933  1.00 75.88           C
ATOM   2446  CG  PRO   313     -46.774  48.819  11.399  1.00 75.88           C
ATOM   2447  C   PRO   313     -46.809  47.649  14.269  1.00 75.88           C
ATOM   2448  O   PRO   313     -47.547  48.640  14.515  1.00 75.88           O
ATOM   2449  OXT PRO   313     -45.959  47.190  15.077  1.00 75.88           O
TER    2450       PRO   313
END
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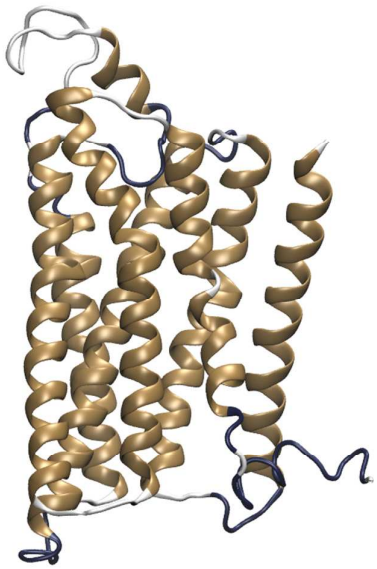
PDB and structure of OR1G1 built by an *ab initio* protocol.



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ATOM      1  N   GLU A  22      22.554 -16.212  18.710  0.00  0.00           N1+
ATOM      2  CA  GLU A  22      23.204 -15.188  17.964  0.00  0.00           C
ATOM      3  C   GLU A  22      22.771 -15.111  16.574  0.00  0.00           C
ATOM      4  O   GLU A  22      23.223 -14.226  15.851  0.00  0.00           O
ATOM      5  CB  GLU A  22      24.736 -15.386  18.085  0.00  0.00           C
ATOM      6  CG  GLU A  22      25.268 -15.281  19.545  0.00  0.00           C
ATOM      7  CD  GLU A  22      26.418 -14.382  19.697  0.00  0.00           C
ATOM      8  OE1 GLU A  22      27.257 -14.219  18.784  0.00  0.00           O
ATOM      9  OE2 GLU A  22      26.457 -13.562  20.637  0.00  0.00           O1-
ATOM     10  N   GLU A  23      21.856 -15.933  16.105  0.00  0.00           N
ATOM     11  CA  GLU A  23      21.286 -15.989  14.795  0.00  0.00           C
ATOM     12  C   GLU A  23      20.716 -14.703  14.324  0.00  0.00           C
ATOM     13  O   GLU A  23      20.590 -14.478  13.096  0.00  0.00           O
ATOM     14  CB  GLU A  23      20.250 -17.147  14.779  0.00  0.00           C
ATOM     15  CG  GLU A  23      19.102 -17.045  15.825  0.00  0.00           C
ATOM     16  CD  GLU A  23      19.440 -17.329  17.234  0.00  0.00           C
ATOM     17  OE1 GLU A  23      20.539 -17.812  17.585  0.00  0.00           O
ATOM     18  OE2 GLU A  23      18.604 -17.058  18.122  0.00  0.00           O1-
ATOM     19  N   GLN A  24      20.446 -13.724  15.210  0.00  0.00           N
ATOM     20  CA  GLN A  24      20.138 -12.368  14.913  0.00  0.00           C
ATOM     21  C   GLN A  24      21.157 -11.756  14.019  0.00  0.00           C
ATOM     22  O   GLN A  24      20.787 -10.984  13.104  0.00  0.00           O
ATOM     23  CB  GLN A  24      20.069 -11.607  16.269  0.00  0.00           C
ATOM     24  CG  GLN A  24      18.997 -12.098  17.285  0.00  0.00           C
ATOM     25  CD  GLN A  24      19.178 -13.483  17.747  0.00  0.00           C
ATOM     26  OE1 GLN A  24      20.320 -13.918  18.006  0.00  0.00           O
ATOM     27  NE2 GLN A  24      18.154 -14.332  17.832  0.00  0.00           N
ATOM     28  N   LYS A  25      22.471 -12.052  14.147  0.00  0.00           N
ATOM     29  CA  LYS A  25      23.523 -11.438  13.386  0.00  0.00           C
ATOM     30  C   LYS A  25      23.495 -11.787  11.927  0.00  0.00           C
ATOM     31  O   LYS A  25      23.424 -10.830  11.111  0.00  0.00           O
ATOM     32  CB  LYS A  25      24.884 -11.736  14.075  0.00  0.00           C
ATOM     33  CG  LYS A  25      24.948 -11.215  15.535  0.00  0.00           C
ATOM     34  CD  LYS A  25      26.346 -11.424  16.167  0.00  0.00           C
ATOM     35  CE  LYS A  25      26.419 -10.957  17.637  0.00  0.00           C
ATOM     36  NZ  LYS A  25      25.746 -11.904  18.524  0.00  0.00           N1+
ATOM     37  N   PRO A  26      23.503 -13.052  11.408  0.00  0.00           N
ATOM     38  CA  PRO A  26      23.329 -13.317  10.002  0.00  0.00           C
ATOM     39  C   PRO A  26      22.038 -12.828   9.462  0.00  0.00           C
ATOM     40  O   PRO A  26      21.998 -12.347   8.300  0.00  0.00           O
ATOM     41  CB  PRO A  26      23.464 -14.848   9.866  0.00  0.00           C
ATOM     42  CG  PRO A  26      23.199 -15.376  11.276  0.00  0.00           C
ATOM     43  CD  PRO A  26      23.699 -14.240  12.175  0.00  0.00           C
ATOM     44  N   LEU A  27      20.926 -12.854  10.229  0.00  0.00           N
ATOM     45  CA  LEU A  27      19.686 -12.244   9.859  0.00  0.00           C
ATOM     46  C   LEU A  27      19.849 -10.789   9.602  0.00  0.00           C
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ATOM     47  O   LEU A  27      19.565 -10.348   8.462  0.00  0.00           O
ATOM     48  CB  LEU A  27      18.649 -12.563  10.968  0.00  0.00           C
ATOM     49  CG  LEU A  27      17.718 -13.757  10.622  0.00  0.00           C
ATOM     50  CD1 LEU A  27      18.466 -15.105  10.523  0.00  0.00           C
ATOM     51  CD2 LEU A  27      16.591 -13.871  11.670  0.00  0.00           C
ATOM     52  N   PHE A  28      20.371  -9.957  10.534  0.00  0.00           N
ATOM     53  CA  PHE A  28      20.713  -8.581  10.297  0.00  0.00           C
ATOM     54  C   PHE A  28      21.514  -8.415   9.059  0.00  0.00           C
ATOM     55  O   PHE A  28      21.120  -7.596   8.195  0.00  0.00           O
ATOM     56  CB  PHE A  28      21.443  -8.018  11.545  0.00  0.00           C
ATOM     57  CG  PHE A  28      21.967  -6.644  11.366  0.00  0.00           C
ATOM     58  CD1 PHE A  28      23.313  -6.443  11.012  0.00  0.00           C
ATOM     59  CD2 PHE A  28      21.138  -5.524  11.544  0.00  0.00           C
ATOM     60  CE1 PHE A  28      23.814  -5.149  10.823  0.00  0.00           C
ATOM     61  CE2 PHE A  28      21.638  -4.229  11.355  0.00  0.00           C
ATOM     62  CZ  PHE A  28      22.976  -4.041  10.993  0.00  0.00           C
ATOM     63  N   GLY A  29      22.613  -9.171   8.841  0.00  0.00           N
ATOM     64  CA  GLY A  29      23.370  -9.143   7.621  0.00  0.00           C
ATOM     65  C   GLY A  29      22.557  -9.300   6.393  0.00  0.00           C
ATOM     66  O   GLY A  29      22.586  -8.427   5.490  0.00  0.00           O
ATOM     67  N   SER A  30      21.761 -10.381   6.270  0.00  0.00           N
ATOM     68  CA  SER A  30      20.872 -10.622   5.169  0.00  0.00           C
ATOM     69  C   SER A  30      19.919  -9.506   4.940  0.00  0.00           C
ATOM     70  O   SER A  30      19.783  -8.997   3.801  0.00  0.00           O
ATOM     71  CB  SER A  30      20.103 -11.943   5.410  0.00  0.00           C
ATOM     72  OG  SER A  30      20.988 -13.004   5.771  0.00  0.00           O
ATOM     73  N   PHE A  31      19.208  -9.009   5.970  0.00  0.00           N
ATOM     74  CA  PHE A  31      18.286  -7.917   5.849  0.00  0.00           C
ATOM     75  C   PHE A  31      18.932  -6.649   5.420  0.00  0.00           C
ATOM     76  O   PHE A  31      18.416  -5.977   4.493  0.00  0.00           O
ATOM     77  CB  PHE A  31      17.498  -7.790   7.177  0.00  0.00           C
ATOM     78  CG  PHE A  31      16.865  -9.056   7.630  0.00  0.00           C
ATOM     79  CD1 PHE A  31      16.303  -9.982   6.728  0.00  0.00           C
ATOM     80  CD2 PHE A  31      16.812  -9.348   9.004  0.00  0.00           C
ATOM     81  CE1 PHE A  31      15.732 -11.177   7.182  0.00  0.00           C
ATOM     82  CE2 PHE A  31      16.224 -10.534   9.459  0.00  0.00           C
ATOM     83  CZ  PHE A  31      15.688 -11.452   8.550  0.00  0.00           C
ATOM     84  N   LEU A  32      20.107  -6.252   5.959  0.00  0.00           N
ATOM     85  CA  LEU A  32      20.881  -5.147   5.478  0.00  0.00           C
ATOM     86  C   LEU A  32      21.244  -5.294   4.041  0.00  0.00           C
ATOM     87  O   LEU A  32      21.082  -4.325   3.260  0.00  0.00           O
ATOM     88  CB  LEU A  32      22.115  -4.986   6.402  0.00  0.00           C
ATOM     89  CG  LEU A  32      22.961  -3.708   6.152  0.00  0.00           C
ATOM     90  CD1 LEU A  32      22.171  -2.410   6.439  0.00  0.00           C
ATOM     91  CD2 LEU A  32      24.227  -3.742   7.035  0.00  0.00           C
ATOM     92  N   PHE A  33      21.696  -6.470   3.545  0.00  0.00           N
ATOM     93  CA  PHE A  33      21.870  -6.715   2.140  0.00  0.00           C
ATOM     94  C   PHE A  33      20.643  -6.449   1.333  0.00  0.00           C
ATOM     95  O   PHE A  33      20.717  -5.678   0.345  0.00  0.00           O
ATOM     96  CB  PHE A  33      22.391  -8.160   1.936  0.00  0.00           C
ATOM     97  CG  PHE A  33      22.661  -8.474   0.515  0.00  0.00           C
ATOM     98  CD1 PHE A  33      23.687  -7.810  -0.180  0.00  0.00           C
ATOM     99  CD2 PHE A  33      21.886  -9.430  -0.162  0.00  0.00           C
ATOM    100  CE1 PHE A  33      23.925  -8.088  -1.531  0.00  0.00           C
ATOM    101  CE2 PHE A  33      22.125  -9.711  -1.513  0.00  0.00           C
ATOM    102  CZ  PHE A  33      23.144  -9.039  -2.199  0.00  0.00           C
ATOM    103  N   MET A  34      19.451  -7.000   1.653  0.00  0.00           N
ATOM    104  CA  MET A  34      18.228  -6.681   0.959  0.00  0.00           C
ATOM    105  C   MET A  34      17.929  -5.222   0.941  0.00  0.00           C
ATOM    106  O   MET A  34      17.646  -4.672  -0.155  0.00  0.00           O
ATOM    107  CB  MET A  34      17.041  -7.489   1.541  0.00  0.00           C
ATOM    108  CG  MET A  34      16.902  -8.891   0.910  0.00  0.00           C
ATOM    109  SD  MET A  34      18.203 -10.030   1.429  0.00  0.00           S
ATOM    110  CE  MET A  34      17.638 -11.419   0.428  0.00  0.00           C
ATOM    111  N   TYR A  35      18.039  -4.485   2.073  0.00  0.00           N
ATOM    112  CA  TYR A  35      17.976  -3.048   2.111  0.00  0.00           C
ATOM    113  C   TYR A  35      18.865  -2.440   1.083  0.00  0.00           C
ATOM    114  O   TYR A  35      18.376  -1.662   0.224  0.00  0.00           O
ATOM    115  CB  TYR A  35      18.267  -2.573   3.566  0.00  0.00           C
ATOM    116  CG  TYR A  35      18.640  -1.146   3.723  0.00  0.00           C
ATOM    117  CD1 TYR A  35      19.948  -0.712   3.436  0.00  0.00           C
ATOM    118  CD2 TYR A  35      17.706  -0.199   4.179  0.00  0.00           C
ATOM    119  CE1 TYR A  35      20.293   0.642   3.525  0.00  0.00           C
ATOM    120  CE2 TYR A  35      18.051   1.156   4.276  0.00  0.00           C
ATOM    121  CZ  TYR A  35      19.341   1.580   3.935  0.00  0.00           C
ATOM    122  OH  TYR A  35      19.676   2.886   4.004  0.00  0.00           O
ATOM    123  N   LEU A  36      20.180  -2.759   1.058  0.00  0.00           N
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ATOM    124  CA  LEU A  36      21.118  -2.259   0.097  0.00  0.00           C
ATOM    125  C   LEU A  36      20.674  -2.470  -1.304  0.00  0.00           C
ATOM    126  O   LEU A  36      20.621  -1.481  -2.077  0.00  0.00           O
ATOM    127  CB  LEU A  36      22.511  -2.883   0.368  0.00  0.00           C
ATOM    128  CG  LEU A  36      23.662  -2.318  -0.512  0.00  0.00           C
ATOM    129  CD1 LEU A  36      23.928  -0.820  -0.244  0.00  0.00           C
ATOM    130  CD2 LEU A  36      24.953  -3.129  -0.270  0.00  0.00           C
ATOM    131  N   VAL A  37      20.298  -3.699  -1.726  0.00  0.00           N
ATOM    132  CA  VAL A  37      19.798  -3.978  -3.048  0.00  0.00           C
ATOM    133  C   VAL A  37      18.695  -3.052  -3.414  0.00  0.00           C
ATOM    134  O   VAL A  37      18.821  -2.311  -4.426  0.00  0.00           O
ATOM    135  CB  VAL A  37      19.340  -5.466  -3.178  0.00  0.00           C
ATOM    136  CG1 VAL A  37      18.686  -5.774  -4.550  0.00  0.00           C
ATOM    137  CG2 VAL A  37      20.508  -6.457  -2.972  0.00  0.00           C
ATOM    138  N   THR A  38      17.575  -3.014  -2.655  0.00  0.00           N
ATOM    139  CA  THR A  38      16.430  -2.211  -2.976  0.00  0.00           C
ATOM    140  C   THR A  38      16.753  -0.766  -3.031  0.00  0.00           C
ATOM    141  O   THR A  38      16.365  -0.110  -4.031  0.00  0.00           O
ATOM    142  CB  THR A  38      15.270  -2.492  -1.987  0.00  0.00           C
ATOM    143  OG1 THR A  38      14.883  -3.862  -2.056  0.00  0.00           O
ATOM    144  CG2 THR A  38      14.008  -1.666  -2.295  0.00  0.00           C
ATOM    145  N   VAL A  39      17.456  -0.164  -2.040  0.00  0.00           N
ATOM    146  CA  VAL A  39      17.787   1.232  -2.050  0.00  0.00           C
ATOM    147  C   VAL A  39      18.623   1.582  -3.228  0.00  0.00           C
ATOM    148  O   VAL A  39      18.233   2.488  -4.009  0.00  0.00           O
ATOM    149  CB  VAL A  39      18.378   1.658  -0.664  0.00  0.00           C
ATOM    150  CG1 VAL A  39      19.906   1.485  -0.506  0.00  0.00           C
ATOM    151  CG2 VAL A  39      18.019   3.117  -0.310  0.00  0.00           C
ATOM    152  N   ALA A  40      19.750   0.883  -3.508  0.00  0.00           N
ATOM    153  CA  ALA A  40      20.617   1.177  -4.602  0.00  0.00           C
ATOM    154  C   ALA A  40      19.933   1.080  -5.912  0.00  0.00           C
ATOM    155  O   ALA A  40      20.000   2.057  -6.697  0.00  0.00           O
ATOM    156  CB  ALA A  40      21.833   0.231  -4.527  0.00  0.00           C
ATOM    157  N   GLY A  41      19.212  -0.017  -6.244  0.00  0.00           N
ATOM    158  CA  GLY A  41      18.533  -0.167  -7.496  0.00  0.00           C
ATOM    159  C   GLY A  41      17.595   0.929  -7.814  0.00  0.00           C
ATOM    160  O   GLY A  41      17.675   1.536  -8.911  0.00  0.00           O
ATOM    161  N   ASN A  42      16.659   1.280  -6.910  0.00  0.00           N
ATOM    162  CA  ASN A  42      15.701   2.315  -7.143  0.00  0.00           C
ATOM    163  C   ASN A  42      16.308   3.671  -7.193  0.00  0.00           C
ATOM    164  O   ASN A  42      15.940   4.453  -8.107  0.00  0.00           O
ATOM    165  CB  ASN A  42      14.585   2.163  -6.089  0.00  0.00           C
ATOM    166  CG  ASN A  42      13.832   0.919  -6.314  0.00  0.00           C
ATOM    167  OD1 ASN A  42      13.075   0.795  -7.299  0.00  0.00           O
ATOM    168  ND2 ASN A  42      13.978  -0.140  -5.519  0.00  0.00           N
ATOM    169  N   LEU A  43      17.298   4.052  -6.348  0.00  0.00           N
ATOM    170  CA  LEU A  43      18.017   5.283  -6.521  0.00  0.00           C
ATOM    171  C   LEU A  43      18.695   5.350  -7.840  0.00  0.00           C
ATOM    172  O   LEU A  43      18.527   6.379  -8.539  0.00  0.00           O
ATOM    173  CB  LEU A  43      19.030   5.495  -5.369  0.00  0.00           C
ATOM    174  CG  LEU A  43      18.371   5.868  -4.013  0.00  0.00           C
ATOM    175  CD1 LEU A  43      19.411   5.756  -2.879  0.00  0.00           C
ATOM    176  CD2 LEU A  43      17.779   7.297  -4.018  0.00  0.00           C
ATOM    177  N   LEU A  44      19.423   4.315  -8.323  0.00  0.00           N
ATOM    178  CA  LEU A  44      19.970   4.280  -9.649  0.00  0.00           C
ATOM    179  C   LEU A  44      18.942   4.517 -10.694  0.00  0.00           C
ATOM    180  O   LEU A  44      19.167   5.419 -11.534  0.00  0.00           O
ATOM    181  CB  LEU A  44      20.703   2.937  -9.897  0.00  0.00           C
ATOM    182  CG  LEU A  44      22.069   2.819  -9.168  0.00  0.00           C
ATOM    183  CD1 LEU A  44      22.504   1.340  -9.087  0.00  0.00           C
ATOM    184  CD2 LEU A  44      23.170   3.645  -9.871  0.00  0.00           C
ATOM    185  N   ILE A  45      17.776   3.830 -10.732  0.00  0.00           N
ATOM    186  CA  ILE A  45      16.703   4.130 -11.653  0.00  0.00           C
ATOM    187  C   ILE A  45      16.345   5.574 -11.643  0.00  0.00           C
ATOM    188  O   ILE A  45      16.411   6.227 -12.716  0.00  0.00           O
ATOM    189  CB  ILE A  45      15.471   3.207 -11.376  0.00  0.00           C
ATOM    190  CG1 ILE A  45      15.785   1.751 -11.824  0.00  0.00           C
ATOM    191  CG2 ILE A  45      14.170   3.709 -12.060  0.00  0.00           C
ATOM    192  CD1 ILE A  45      14.732   0.711 -11.388  0.00  0.00           C
ATOM    193  N   ILE A  46      15.971   6.181 -10.493  0.00  0.00           N
ATOM    194  CA  ILE A  46      15.609   7.571 -10.409  0.00  0.00           C
ATOM    195  C   ILE A  46      16.688   8.444 -10.946  0.00  0.00           C
ATOM    196  O   ILE A  46      16.417   9.275 -11.849  0.00  0.00           O
ATOM    197  CB  ILE A  46      15.181   7.901  -8.942  0.00  0.00           C
ATOM    198  CG1 ILE A  46      13.801   7.244  -8.639  0.00  0.00           C
ATOM    199  CG2 ILE A  46      15.126   9.426  -8.666  0.00  0.00           C
ATOM    200  CD1 ILE A  46      13.361   7.314  -7.162  0.00  0.00           C
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ATOM    201  N   LEU A  47      17.958   8.318 -10.508  0.00  0.00           N
ATOM    202  CA  LEU A  47      19.052   9.102 -10.995  0.00  0.00           C
ATOM    203  C   LEU A  47      19.286   8.951 -12.451  0.00  0.00           C
ATOM    204  O   LEU A  47      19.423   9.992 -13.131  0.00  0.00           O
ATOM    205  CB  LEU A  47      20.324   8.775 -10.176  0.00  0.00           C
ATOM    206  CG  LEU A  47      20.274   9.336  -8.728  0.00  0.00           C
ATOM    207  CD1 LEU A  47      21.344   8.652  -7.852  0.00  0.00           C
ATOM    208  CD2 LEU A  47      20.480  10.869  -8.696  0.00  0.00           C
ATOM    209  N   VAL A  48      19.319   7.753 -13.073  0.00  0.00           N
ATOM    210  CA  VAL A  48      19.436   7.584 -14.497  0.00  0.00           C
ATOM    211  C   VAL A  48      18.359   8.295 -15.233  0.00  0.00           C
ATOM    212  O   VAL A  48      18.673   9.051 -16.185  0.00  0.00           O
ATOM    213  CB  VAL A  48      19.484   6.060 -14.819  0.00  0.00           C
ATOM    214  CG1 VAL A  48      19.233   5.743 -16.312  0.00  0.00           C
ATOM    215  CG2 VAL A  48      20.851   5.459 -14.413  0.00  0.00           C
ATOM    216  N   ILE A  49      17.059   8.153 -14.880  0.00  0.00           N
ATOM    217  CA  ILE A  49      16.001   8.871 -15.538  0.00  0.00           C
ATOM    218  C   ILE A  49      16.170  10.340 -15.391  0.00  0.00           C
ATOM    219  O   ILE A  49      16.021  11.055 -16.408  0.00  0.00           O
ATOM    220  CB  ILE A  49      14.597   8.380 -15.075  0.00  0.00           C
ATOM    221  CG1 ILE A  49      14.424   6.865 -15.389  0.00  0.00           C
ATOM    222  CG2 ILE A  49      13.472   9.196 -15.766  0.00  0.00           C
ATOM    223  CD1 ILE A  49      13.158   6.241 -14.771  0.00  0.00           C
ATOM    224  N   ILE A  50      16.498  10.914 -14.211  0.00  0.00           N
ATOM    225  CA  ILE A  50      16.826  12.309 -14.074  0.00  0.00           C
ATOM    226  C   ILE A  50      17.954  12.703 -14.964  0.00  0.00           C
ATOM    227  O   ILE A  50      17.824  13.728 -15.673  0.00  0.00           O
ATOM    228  CB  ILE A  50      17.058  12.638 -12.564  0.00  0.00           C
ATOM    229  CG1 ILE A  50      15.694  12.607 -11.815  0.00  0.00           C
ATOM    230  CG2 ILE A  50      17.768  13.999 -12.340  0.00  0.00           C
ATOM    231  CD1 ILE A  50      15.805  12.693 -10.280  0.00  0.00           C
ATOM    232  N   THR A  51      19.095  11.984 -15.021  0.00  0.00           N
ATOM    233  CA  THR A  51      20.217  12.268 -15.872  0.00  0.00           C
ATOM    234  C   THR A  51      19.887  12.302 -17.319  0.00  0.00           C
ATOM    235  O   THR A  51      20.144  13.352 -17.954  0.00  0.00           O
ATOM    236  CB  THR A  51      21.372  11.256 -15.621  0.00  0.00           C
ATOM    237  OG1 THR A  51      21.669  11.159 -14.231  0.00  0.00           O
ATOM    238  CG2 THR A  51      22.690  11.656 -16.312  0.00  0.00           C
ATOM    239  N   ASP A  52      19.368  11.232 -17.966  0.00  0.00           N
ATOM    240  CA  ASP A  52      19.244  11.181 -19.397  0.00  0.00           C
ATOM    241  C   ASP A  52      17.892  11.564 -19.882  0.00  0.00           C
ATOM    242  O   ASP A  52      16.895  10.822 -19.695  0.00  0.00           O
ATOM    243  CB  ASP A  52      19.653   9.790 -19.940  0.00  0.00           C
ATOM    244  CG  ASP A  52      21.059   9.439 -19.707  0.00  0.00           C
ATOM    245  OD1 ASP A  52      21.480   9.190 -18.557  0.00  0.00           O
ATOM    246  OD2 ASP A  52      21.844   9.330 -20.675  0.00  0.00           O1-
ATOM    247  N   THR A  53      17.747  12.707 -20.592  0.00  0.00           N1+
ATOM    248  CA  THR A  53      16.521  13.129 -21.203  0.00  0.00           C
ATOM    249  C   THR A  53      16.142  12.210 -22.301  0.00  0.00           C
ATOM    250  O   THR A  53      16.937  12.060 -23.256  0.00  0.00           O
ATOM    251  CB  THR A  53      16.604  14.588 -21.727  0.00  0.00           C
ATOM    252  OG1 THR A  53      17.182  15.444 -20.749  0.00  0.00           O
ATOM    253  CG2 THR A  53      15.219  15.172 -22.073  0.00  0.00           C
ATOM    254  N   GLN A  54      14.948  11.577 -22.251  0.00  0.00           N
ATOM    255  CA  GLN A  54      14.382  10.607 -23.157  0.00  0.00           C
ATOM    256  C   GLN A  54      13.774   9.511 -22.420  0.00  0.00           C
ATOM    257  O   GLN A  54      12.729   9.052 -22.866  0.00  0.00           O
ATOM    258  CB  GLN A  54      15.318  10.076 -24.286  0.00  0.00           C
ATOM    259  CG  GLN A  54      14.682   9.078 -25.296  0.00  0.00           C
ATOM    260  CD  GLN A  54      14.905   7.653 -25.000  0.00  0.00           C
ATOM    261  OE1 GLN A  54      13.946   6.886 -24.774  0.00  0.00           O
ATOM    262  NE2 GLN A  54      16.136   7.133 -25.030  0.00  0.00           N
ATOM    263  N   LEU A  55      14.315   9.023 -21.316  0.00  0.00           N
ATOM    264  CA  LEU A  55      13.888   7.839 -20.609  0.00  0.00           C
ATOM    265  C   LEU A  55      12.627   8.029 -19.831  0.00  0.00           C
ATOM    266  O   LEU A  55      12.487   7.620 -18.655  0.00  0.00           O
ATOM    267  CB  LEU A  55      15.074   7.379 -19.713  0.00  0.00           C
ATOM    268  CG  LEU A  55      16.255   6.678 -20.440  0.00  0.00           C
ATOM    269  CD1 LEU A  55      16.940   7.553 -21.511  0.00  0.00           C
ATOM    270  CD2 LEU A  55      17.306   6.240 -19.397  0.00  0.00           C
ATOM    271  N   HIS A  56      11.596   8.653 -20.429  0.00  0.00           N
ATOM    272  CA  HIS A  56      10.360   9.053 -19.827  0.00  0.00           C
ATOM    273  C   HIS A  56       9.221   8.519 -20.611  0.00  0.00           C
ATOM    274  O   HIS A  56       8.553   9.259 -21.371  0.00  0.00           O
ATOM    275  CB  HIS A  56      10.295  10.602 -19.667  0.00  0.00           C
ATOM    276  CG  HIS A  56      11.611  11.254 -19.579  0.00  0.00           C
ATOM    277  ND1 HIS A  56      12.540  11.089 -18.630  0.00  0.00           N
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ATOM    278  CD2 HIS A  56      12.141  12.141 -20.506  0.00  0.00           C
ATOM    279  CE1 HIS A  56      13.612  11.827 -18.951  0.00  0.00           C
ATOM    280  NE2 HIS A  56      13.376  12.472 -20.107  0.00  0.00           N
ATOM    281  N   THR A  57       8.870   7.221 -20.505  0.00  0.00           N1+
ATOM    282  CA  THR A  57       7.759   6.634 -21.206  0.00  0.00           C
ATOM    283  C   THR A  57       6.619   6.405 -20.281  0.00  0.00           C
ATOM    284  O   THR A  57       6.871   6.365 -19.053  0.00  0.00           O
ATOM    285  CB  THR A  57       8.139   5.301 -21.911  0.00  0.00           C
ATOM    286  OG1 THR A  57       7.977   4.186 -21.034  0.00  0.00           O
ATOM    287  CG2 THR A  57       9.571   5.275 -22.477  0.00  0.00           C
ATOM    288  N   PRO A  58       5.342   6.136 -20.678  0.00  0.00           N
ATOM    289  CA  PRO A  58       4.310   5.774 -19.746  0.00  0.00           C
ATOM    290  C   PRO A  58       4.672   4.620 -18.888  0.00  0.00           C
ATOM    291  O   PRO A  58       4.570   4.719 -17.647  0.00  0.00           O
ATOM    292  CB  PRO A  58       3.064   5.512 -20.617  0.00  0.00           C
ATOM    293  CG  PRO A  58       3.358   6.270 -21.914  0.00  0.00           C
ATOM    294  CD  PRO A  58       4.884   6.199 -22.030  0.00  0.00           C
ATOM    295  N   MET A  59       5.183   3.489 -19.422  0.00  0.00           N
ATOM    296  CA  MET A  59       5.582   2.336 -18.661  0.00  0.00           C
ATOM    297  C   MET A  59       6.497   2.648 -17.528  0.00  0.00           C
ATOM    298  O   MET A  59       6.298   2.141 -16.396  0.00  0.00           O
ATOM    299  CB  MET A  59       6.198   1.313 -19.648  0.00  0.00           C
ATOM    300  CG  MET A  59       6.392  -0.087 -19.020  0.00  0.00           C
ATOM    301  SD  MET A  59       6.812  -1.344 -20.251  0.00  0.00           S
ATOM    302  CE  MET A  59       8.517  -0.840 -20.561  0.00  0.00           C
ATOM    303  N   TYR A  60       7.521   3.509 -17.699  0.00  0.00           N
ATOM    304  CA  TYR A  60       8.432   3.874 -16.658  0.00  0.00           C
ATOM    305  C   TYR A  60       7.816   4.753 -15.628  0.00  0.00           C
ATOM    306  O   TYR A  60       8.409   4.889 -14.532  0.00  0.00           O
ATOM    307  CB  TYR A  60       9.707   4.508 -17.275  0.00  0.00           C
ATOM    308  CG  TYR A  60      10.595   3.531 -17.956  0.00  0.00           C
ATOM    309  CD1 TYR A  60      10.160   2.832 -19.094  0.00  0.00           C
ATOM    310  CD2 TYR A  60      11.906   3.306 -17.497  0.00  0.00           C
ATOM    311  CE1 TYR A  60      11.011   1.956 -19.773  0.00  0.00           C
ATOM    312  CE2 TYR A  60      12.771   2.442 -18.188  0.00  0.00           C
ATOM    313  CZ  TYR A  60      12.323   1.777 -19.337  0.00  0.00           C
ATOM    314  OH  TYR A  60      13.127   0.983 -20.074  0.00  0.00           O
ATOM    315  N   PHE A  61       6.607   5.337 -15.794  0.00  0.00           N
ATOM    316  CA  PHE A  61       5.934   6.105 -14.792  0.00  0.00           C
ATOM    317  C   PHE A  61       5.367   5.153 -13.807  0.00  0.00           C
ATOM    318  O   PHE A  61       5.606   5.253 -12.581  0.00  0.00           O
ATOM    319  CB  PHE A  61       4.853   6.973 -15.502  0.00  0.00           C
ATOM    320  CG  PHE A  61       4.732   8.335 -14.942  0.00  0.00           C
ATOM    321  CD1 PHE A  61       4.283   8.538 -13.626  0.00  0.00           C
ATOM    322  CD2 PHE A  61       5.067   9.453 -15.729  0.00  0.00           C
ATOM    323  CE1 PHE A  61       4.208   9.832 -13.094  0.00  0.00           C
ATOM    324  CE2 PHE A  61       4.988  10.746 -15.199  0.00  0.00           C
ATOM    325  CZ  PHE A  61       4.572  10.934 -13.877  0.00  0.00           C
ATOM    326  N   PHE A  62       4.675   4.098 -14.278  0.00  0.00           N
ATOM    327  CA  PHE A  62       4.213   3.002 -13.482  0.00  0.00           C
ATOM    328  C   PHE A  62       5.341   2.301 -12.809  0.00  0.00           C
ATOM    329  O   PHE A  62       5.265   2.028 -11.585  0.00  0.00           O
ATOM    330  CB  PHE A  62       3.329   2.093 -14.372  0.00  0.00           C
ATOM    331  CG  PHE A  62       2.241   2.863 -15.023  0.00  0.00           C
ATOM    332  CD1 PHE A  62       1.190   3.405 -14.263  0.00  0.00           C
ATOM    333  CD2 PHE A  62       2.264   3.098 -16.407  0.00  0.00           C
ATOM    334  CE1 PHE A  62       0.201   4.190 -14.871  0.00  0.00           C
ATOM    335  CE2 PHE A  62       1.291   3.903 -17.012  0.00  0.00           C
ATOM    336  CZ  PHE A  62       0.255   4.445 -16.245  0.00  0.00           C
ATOM    337  N   LEU A  63       6.492   2.038 -13.472  0.00  0.00           N
ATOM    338  CA  LEU A  63       7.684   1.584 -12.807  0.00  0.00           C
ATOM    339  C   LEU A  63       8.150   2.500 -11.724  0.00  0.00           C
ATOM    340  O   LEU A  63       8.386   2.015 -10.593  0.00  0.00           O
ATOM    341  CB  LEU A  63       8.801   1.305 -13.844  0.00  0.00           C
ATOM    342  CG  LEU A  63       9.876   0.295 -13.353  0.00  0.00           C
ATOM    343  CD1 LEU A  63       9.346  -1.158 -13.342  0.00  0.00           C
ATOM    344  CD2 LEU A  63      11.135   0.377 -14.243  0.00  0.00           C
ATOM    345  N   ALA A  64       8.295   3.836 -11.900  0.00  0.00           N
ATOM    346  CA  ALA A  64       8.568   4.759 -10.829  0.00  0.00           C
ATOM    347  C   ALA A  64       7.645   4.631  -9.667  0.00  0.00           C
ATOM    348  O   ALA A  64       8.088   4.677  -8.495  0.00  0.00           O
ATOM    349  CB  ALA A  64       8.551   6.199 -11.381  0.00  0.00           C
ATOM    350  N   ASN A  65       6.323   4.449  -9.850  0.00  0.00           N
ATOM    351  CA  ASN A  65       5.404   4.160  -8.780  0.00  0.00           C
ATOM    352  C   ASN A  65       5.750   2.931  -8.011  0.00  0.00           C
ATOM    353  O   ASN A  65       5.840   2.985  -6.759  0.00  0.00           O
ATOM    354  CB  ASN A  65       3.961   4.097  -9.327  0.00  0.00           C
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ATOM    355  CG  ASN A  65       3.256   5.382  -9.310  0.00  0.00           C
ATOM    356  OD1 ASN A  65       2.587   5.719  -8.312  0.00  0.00           O
ATOM    357  ND2 ASN A  65       3.300   6.234 -10.336  0.00  0.00           N
ATOM    358  N   LEU A  66       6.021   1.775  -8.657  0.00  0.00           N
ATOM    359  CA  LEU A  66       6.562   0.607  -8.005  0.00  0.00           C
ATOM    360  C   LEU A  66       7.804   0.924  -7.244  0.00  0.00           C
ATOM    361  O   LEU A  66       7.902   0.583  -6.040  0.00  0.00           O
ATOM    362  CB  LEU A  66       6.816  -0.508  -9.057  0.00  0.00           C
ATOM    363  CG  LEU A  66       5.653  -1.521  -9.239  0.00  0.00           C
ATOM    364  CD1 LEU A  66       4.322  -0.855  -9.653  0.00  0.00           C
ATOM    365  CD2 LEU A  66       6.055  -2.585 -10.285  0.00  0.00           C
ATOM    366  N   SER A  67       8.797   1.639  -7.818  0.00  0.00           N
ATOM    367  CA  SER A  67       9.960   2.111  -7.116  0.00  0.00           C
ATOM    368  C   SER A  67       9.647   2.876  -5.882  0.00  0.00           C
ATOM    369  O   SER A  67      10.250   2.595  -4.823  0.00  0.00           O
ATOM    370  CB  SER A  67      10.851   2.971  -8.041  0.00  0.00           C
ATOM    371  OG  SER A  67      11.460   2.168  -9.045  0.00  0.00           O
ATOM    372  N   LEU A  68       8.734   3.869  -5.869  0.00  0.00           N
ATOM    373  CA  LEU A  68       8.290   4.535  -4.673  0.00  0.00           C
ATOM    374  C   LEU A  68       7.733   3.615  -3.645  0.00  0.00           C
ATOM    375  O   LEU A  68       8.100   3.741  -2.451  0.00  0.00           O
ATOM    376  CB  LEU A  68       7.274   5.647  -5.036  0.00  0.00           C
ATOM    377  CG  LEU A  68       7.926   6.875  -5.726  0.00  0.00           C
ATOM    378  CD1 LEU A  68       6.847   7.733  -6.420  0.00  0.00           C
ATOM    379  CD2 LEU A  68       8.713   7.748  -4.721  0.00  0.00           C
ATOM    380  N   ALA A  69       6.870   2.627  -3.968  0.00  0.00           N
ATOM    381  CA  ALA A  69       6.461   1.616  -3.029  0.00  0.00           C
ATOM    382  C   ALA A  69       7.616   0.870  -2.446  0.00  0.00           C
ATOM    383  O   ALA A  69       7.744   0.796  -1.196  0.00  0.00           O
ATOM    384  CB  ALA A  69       5.440   0.684  -3.713  0.00  0.00           C
ATOM    385  N   ASP A  70       8.569   0.346  -3.252  0.00  0.00           N
ATOM    386  CA  ASP A  70       9.790  -0.255  -2.781  0.00  0.00           C
ATOM    387  C   ASP A  70      10.541   0.661  -1.860  0.00  0.00           C
ATOM    388  O   ASP A  70      10.954   0.265  -0.743  0.00  0.00           O
ATOM    389  CB  ASP A  70      10.664  -0.707  -3.989  0.00  0.00           C
ATOM    390  CG  ASP A  70      10.105  -1.734  -4.892  0.00  0.00           C
ATOM    391  OD1 ASP A  70       8.992  -2.261  -4.691  0.00  0.00           O
ATOM    392  OD2 ASP A  70      10.757  -2.120  -5.894  0.00  0.00          O1-
ATOM    393  N   ALA A  71      10.751   1.958  -2.175  0.00  0.00           N
ATOM    394  CA  ALA A  71      11.323   2.937  -1.295  0.00  0.00           C
ATOM    395  C   ALA A  71      10.621   3.075   0.012  0.00  0.00           C
ATOM    396  O   ALA A  71      11.282   3.063   1.078  0.00  0.00           O
ATOM    397  CB  ALA A  71      11.395   4.293  -2.023  0.00  0.00           C
ATOM    398  N   CYS A  72       9.278   3.199   0.086  0.00  0.00           N
ATOM    399  CA  CYS A  72       8.543   3.192   1.326  0.00  0.00           C
ATOM    400  C   CYS A  72       8.884   2.021   2.174  0.00  0.00           C
ATOM    401  O   CYS A  72       9.241   2.205   3.366  0.00  0.00           O
ATOM    402  CB  CYS A  72       7.022   3.241   1.066  0.00  0.00           C
ATOM    403  SG  CYS A  72       6.574   4.696   0.100  0.00  0.00           S
ATOM    404  N   PHE A  73       8.900   0.782   1.629  0.00  0.00           N
ATOM    405  CA  PHE A  73       9.399  -0.379   2.313  0.00  0.00           C
ATOM    406  C   PHE A  73      10.765  -0.166   2.868  0.00  0.00           C
ATOM    407  O   PHE A  73      10.978  -0.390   4.087  0.00  0.00           O
ATOM    408  CB  PHE A  73       9.346  -1.623   1.375  0.00  0.00           C
ATOM    409  CG  PHE A  73      10.487  -2.554   1.562  0.00  0.00           C
ATOM    410  CD1 PHE A  73      10.541  -3.417   2.667  0.00  0.00           C
ATOM    411  CD2 PHE A  73      11.570  -2.546   0.666  0.00  0.00           C
ATOM    412  CE1 PHE A  73      11.664  -4.230   2.866  0.00  0.00           C
ATOM    413  CE2 PHE A  73      12.695  -3.352   0.877  0.00  0.00           C
ATOM    414  CZ  PHE A  73      12.745  -4.196   1.984  0.00  0.00           C
ATOM    415  N   VAL A  74      11.767   0.189   2.032  0.00  0.00           N
ATOM    416  CA  VAL A  74      13.139   0.300   2.434  0.00  0.00           C
ATOM    417  C   VAL A  74      13.358   1.324   3.486  0.00  0.00           C
ATOM    418  O   VAL A  74      14.204   1.122   4.387  0.00  0.00           O
ATOM    419  CB  VAL A  74      14.068   0.446   1.189  0.00  0.00           C
ATOM    420  CG1 VAL A  74      14.460   1.893   0.813  0.00  0.00           C
ATOM    421  CG2 VAL A  74      15.366  -0.365   1.379  0.00  0.00           C
ATOM    422  N   SER A  75      12.658   2.476   3.461  0.00  0.00           N
ATOM    423  CA  SER A  75      12.762   3.518   4.435  0.00  0.00           C
ATOM    424  C   SER A  75      11.937   3.357   5.657  0.00  0.00           C
ATOM    425  O   SER A  75      12.437   3.778   6.725  0.00  0.00           O
ATOM    426  CB  SER A  75      12.471   4.869   3.752  0.00  0.00           C
ATOM    427  OG  SER A  75      11.172   4.904   3.166  0.00  0.00           O
ATOM    428  N   THR A  76      10.689   2.832   5.683  0.00  0.00           N
ATOM    429  CA  THR A  76       9.892   2.725   6.882  0.00  0.00           C
ATOM    430  C   THR A  76       9.615   1.340   7.316  0.00  0.00           C
ATOM    431  O   THR A  76       9.791   1.053   8.525  0.00  0.00           O
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ATOM    432  CB  THR A  76       8.557   3.502   6.761  0.00  0.00           C
ATOM    433  OG1 THR A  76       7.819   3.215   5.574  0.00  0.00           O
ATOM    434  CG2 THR A  76       8.767   5.020   6.890  0.00  0.00           C
ATOM    435  N   THR A  77       9.166   0.396   6.466  0.00  0.00           N
ATOM    436  CA  THR A  77       8.821  -0.937   6.875  0.00  0.00           C
ATOM    437  C   THR A  77       9.998  -1.695   7.372  0.00  0.00           C
ATOM    438  O   THR A  77       9.986  -2.142   8.547  0.00  0.00           O
ATOM    439  CB  THR A  77       8.105  -1.681   5.716  0.00  0.00           C
ATOM    440  OG1 THR A  77       7.071  -0.858   5.184  0.00  0.00           O
ATOM    441  CG2 THR A  77       7.440  -2.998   6.149  0.00  0.00           C
ATOM    442  N   VAL A  78      11.084  -1.899   6.586  0.00  0.00           N
ATOM    443  CA  VAL A  78      12.177  -2.736   7.007  0.00  0.00           C
ATOM    444  C   VAL A  78      12.904  -2.251   8.209  0.00  0.00           C
ATOM    445  O   VAL A  78      13.126  -3.128   9.074  0.00  0.00           O
ATOM    446  CB  VAL A  78      13.124  -3.186   5.856  0.00  0.00           C
ATOM    447  CG1 VAL A  78      14.055  -2.104   5.280  0.00  0.00           C
ATOM    448  CG2 VAL A  78      13.973  -4.424   6.234  0.00  0.00           C
ATOM    449  N   PRO A  79      13.316  -0.980   8.481  0.00  0.00           N
ATOM    450  CA  PRO A  79      14.037  -0.647   9.682  0.00  0.00           C
ATOM    451  C   PRO A  79      13.347  -1.003  10.910  0.00  0.00           C
ATOM    452  O   PRO A  79      13.943  -1.605  11.797  0.00  0.00           O
ATOM    453  CB  PRO A  79      14.300   0.870   9.570  0.00  0.00           C
ATOM    454  CG  PRO A  79      14.163   1.146   8.072  0.00  0.00           C
ATOM    455  CD  PRO A  79      13.075   0.157   7.654  0.00  0.00           C
ATOM    456  N   LYS A  80      12.065  -0.726  11.046  0.00  0.00           N
ATOM    457  CA  LYS A  80      11.288  -1.122  12.176  0.00  0.00           C
ATOM    458  C   LYS A  80      11.099  -2.587  12.249  0.00  0.00           C
ATOM    459  O   LYS A  80      11.311  -3.150  13.352  0.00  0.00           O
ATOM    460  CB  LYS A  80       9.936  -0.366  12.180  0.00  0.00           C
ATOM    461  CG  LYS A  80       9.995   1.016  12.873  0.00  0.00           C
ATOM    462  CD  LYS A  80      10.471   1.019  14.349  0.00  0.00           C
ATOM    463  CE  LYS A  80       9.638   0.176  15.341  0.00  0.00           C
ATOM    464  NZ  LYS A  80       9.926  -1.264  15.321  0.00  0.00           N1+
ATOM    465  N   MET A  81      10.744  -3.312  11.166  0.00  0.00           N
ATOM    466  CA  MET A  81      10.635  -4.736  11.209  0.00  0.00           C
ATOM    467  C   MET A  81      11.906  -5.426  11.577  0.00  0.00           C
ATOM    468  O   MET A  81      11.886  -6.425  12.338  0.00  0.00           O
ATOM    469  CB  MET A  81      10.057  -5.199   9.851  0.00  0.00           C
ATOM    470  CG  MET A  81       9.462  -6.612   9.950  0.00  0.00           C
ATOM    471  SD  MET A  81       8.043  -6.649  11.063  0.00  0.00           S
ATOM    472  CE  MET A  81       8.459  -8.249  11.781  0.00  0.00           C
ATOM    473  N   LEU A  82      13.095  -4.941  11.151  0.00  0.00           N
ATOM    474  CA  LEU A  82      14.379  -5.389  11.599  0.00  0.00           C
ATOM    475  C   LEU A  82      14.483  -5.378  13.081  0.00  0.00           C
ATOM    476  O   LEU A  82      14.825  -6.421  13.687  0.00  0.00           O
ATOM    477  CB  LEU A  82      15.502  -4.519  10.965  0.00  0.00           C
ATOM    478  CG  LEU A  82      16.721  -5.311  10.423  0.00  0.00           C
ATOM    479  CD1 LEU A  82      17.818  -4.330   9.956  0.00  0.00           C
ATOM    480  CD2 LEU A  82      17.322  -6.280  11.459  0.00  0.00           C
ATOM    481  N   ALA A  83      14.172  -4.266  13.787  0.00  0.00           N
ATOM    482  CA  ALA A  83      14.144  -4.230  15.220  0.00  0.00           C
ATOM    483  C   ALA A  83      13.300  -5.306  15.792  0.00  0.00           C
ATOM    484  O   ALA A  83      13.813  -6.102  16.615  0.00  0.00           O
ATOM    485  CB  ALA A  83      13.663  -2.848  15.700  0.00  0.00           C
ATOM    486  N   ASN A  84      12.024  -5.458  15.374  0.00  0.00           N
ATOM    487  CA  ASN A  84      11.157  -6.513  15.818  0.00  0.00           C
ATOM    488  C   ASN A  84      11.786  -7.849  15.673  0.00  0.00           C
ATOM    489  O   ASN A  84      11.914  -8.553  16.702  0.00  0.00           O
ATOM    490  CB  ASN A  84       9.796  -6.428  15.082  0.00  0.00           C
ATOM    491  CG  ASN A  84       8.978  -5.315  15.578  0.00  0.00           C
ATOM    492  OD1 ASN A  84       9.458  -4.168  15.710  0.00  0.00           O
ATOM    493  ND2 ASN A  84       7.695  -5.476  15.909  0.00  0.00           N
ATOM    494  N   ILE A  85      12.288  -8.302  14.501  0.00  0.00           N
ATOM    495  CA  ILE A  85      12.936  -9.585  14.407  0.00  0.00           C
ATOM    496  C   ILE A  85      14.155  -9.708  15.246  0.00  0.00           C
ATOM    497  O   ILE A  85      14.321 -10.766  15.898  0.00  0.00           O
ATOM    498  CB  ILE A  85      13.137 -10.059  12.938  0.00  0.00           C
ATOM    499  CG1 ILE A  85      13.382 -11.596  12.874  0.00  0.00           C
ATOM    500  CG2 ILE A  85      14.266  -9.292  12.218  0.00  0.00           C
ATOM    501  CD1 ILE A  85      13.096 -12.219  11.494  0.00  0.00           C
ATOM    502  N   GLN A  86      15.063  -8.714  15.358  0.00  0.00           N
ATOM    503  CA  GLN A  86      16.192  -8.786  16.240  0.00  0.00           C
ATOM    504  C   GLN A  86      15.811  -8.965  17.659  0.00  0.00           C
ATOM    505  O   GLN A  86      16.378  -9.873  18.309  0.00  0.00           O
ATOM    506  CB  GLN A  86      17.079  -7.523  16.102  0.00  0.00           C
ATOM    507  CG  GLN A  86      17.728  -7.391  14.708  0.00  0.00           C
ATOM    508  CD  GLN A  86      18.791  -8.361  14.446  0.00  0.00           C
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ATOM    509  OE1 GLN A  86      19.929  -8.221  14.938  0.00  0.00           O
ATOM    510  NE2 GLN A  86      18.581  -9.407  13.645  0.00  0.00           N
ATOM    511  N   ILE A  87      14.905  -8.157  18.253  0.00  0.00           N
ATOM    512  CA  ILE A  87      14.639  -8.200  19.663  0.00  0.00           C
ATOM    513  C   ILE A  87      13.495  -9.064  20.064  0.00  0.00           C
ATOM    514  O   ILE A  87      13.384  -9.324  21.283  0.00  0.00           O
ATOM    515  CB  ILE A  87      14.575  -6.758  20.254  0.00  0.00           C
ATOM    516  CG1 ILE A  87      13.257  -6.025  19.896  0.00  0.00           C
ATOM    517  CG2 ILE A  87      15.812  -5.924  19.829  0.00  0.00           C
ATOM    518  CD1 ILE A  87      13.040  -4.724  20.683  0.00  0.00           C
ATOM    519  N   GLN A  88      12.581  -9.567  19.197  0.00  0.00           N
ATOM    520  CA  GLN A  88      11.531 -10.504  19.513  0.00  0.00           C
ATOM    521  C   GLN A  88      10.469  -9.900  20.359  0.00  0.00           C
ATOM    522  O   GLN A  88       9.706 -10.613  21.051  0.00  0.00           O
ATOM    523  CB  GLN A  88      12.089 -11.838  20.089  0.00  0.00           C
ATOM    524  CG  GLN A  88      13.073 -12.571  19.142  0.00  0.00           C
ATOM    525  CD  GLN A  88      12.407 -13.201  17.992  0.00  0.00           C
ATOM    526  OE1 GLN A  88      11.597 -14.136  18.156  0.00  0.00           O
ATOM    527  NE2 GLN A  88      12.636 -12.826  16.732  0.00  0.00           N
ATOM    528  N   SER A  89      10.330  -8.560  20.345  0.00  0.00           N1+
ATOM    529  CA  SER A  89       9.474  -7.735  21.148  0.00  0.00           C
ATOM    530  C   SER A  89       9.561  -6.348  20.637  0.00  0.00           C
ATOM    531  O   SER A  89      10.101  -6.129  19.527  0.00  0.00           O
ATOM    532  CB  SER A  89       9.901  -7.799  22.638  0.00  0.00           C
ATOM    533  OG  SER A  89       9.399  -8.985  23.236  0.00  0.00           O
ATOM    534  N   GLN A  90       9.073  -5.300  21.334  0.00  0.00           N
ATOM    535  CA  GLN A  90       9.169  -3.950  20.876  0.00  0.00           C
ATOM    536  C   GLN A  90       9.579  -3.027  21.924  0.00  0.00           C
ATOM    537  O   GLN A  90       8.836  -2.158  22.355  0.00  0.00           O
ATOM    538  CB  GLN A  90       7.847  -3.619  20.137  0.00  0.00           C
ATOM    539  CG  GLN A  90       8.074  -3.306  18.638  0.00  0.00           C
ATOM    540  CD  GLN A  90       8.702  -1.999  18.437  0.00  0.00           C
ATOM    541  OE1 GLN A  90       9.873  -1.897  18.014  0.00  0.00           O
ATOM    542  NE2 GLN A  90       8.026  -0.888  18.734  0.00  0.00           N
ATOM    543  N   ALA A  91      10.829  -3.054  22.342  0.00  0.00           N
ATOM    544  CA  ALA A  91      11.440  -2.058  23.169  0.00  0.00           C
ATOM    545  C   ALA A  91      11.576  -0.742  22.491  0.00  0.00           C
ATOM    546  O   ALA A  91      12.012   0.229  23.150  0.00  0.00           O
ATOM    547  CB  ALA A  91      12.800  -2.598  23.654  0.00  0.00           C
ATOM    548  N   ILE A  92      11.173  -0.560  21.210  0.00  0.00           N
ATOM    549  CA  ILE A  92      10.996   0.723  20.591  0.00  0.00           C
ATOM    550  C   ILE A  92       9.554   1.086  20.668  0.00  0.00           C
ATOM    551  O   ILE A  92       9.068   1.982  19.942  0.00  0.00           O
ATOM    552  CB  ILE A  92      11.630   0.805  19.160  0.00  0.00           C
ATOM    553  CG1 ILE A  92      13.011   0.095  19.102  0.00  0.00           C
ATOM    554  CG2 ILE A  92      11.777   2.284  18.702  0.00  0.00           C
ATOM    555  CD1 ILE A  92      13.687   0.131  17.713  0.00  0.00           C
ATOM    556  N   SER A  93       8.762   0.530  21.608  0.00  0.00           N1+
ATOM    557  CA  SER A  93       7.663   1.166  22.268  0.00  0.00           C
ATOM    558  C   SER A  93       6.372   1.196  21.545  0.00  0.00           C
ATOM    559  O   SER A  93       6.286   0.976  20.314  0.00  0.00           O
ATOM    560  CB  SER A  93       8.057   2.577  22.785  0.00  0.00           C
ATOM    561  OG  SER A  93       9.248   2.496  23.563  0.00  0.00           O
ATOM    562  N   TYR A  94       5.274   1.476  22.278  0.00  0.00           N
ATOM    563  CA  TYR A  94       3.928   1.547  21.807  0.00  0.00           C
ATOM    564  C   TYR A  94       3.787   2.368  20.579  0.00  0.00           C
ATOM    565  O   TYR A  94       3.333   1.848  19.534  0.00  0.00           O
ATOM    566  CB  TYR A  94       3.030   2.016  22.985  0.00  0.00           C
ATOM    567  CG  TYR A  94       3.421   3.295  23.635  0.00  0.00           C
ATOM    568  CD1 TYR A  94       2.836   4.508  23.231  0.00  0.00           C
ATOM    569  CD2 TYR A  94       4.366   3.316  24.679  0.00  0.00           C
ATOM    570  CE1 TYR A  94       3.203   5.716  23.837  0.00  0.00           C
ATOM    571  CE2 TYR A  94       4.733   4.524  25.286  0.00  0.00           C
ATOM    572  CZ  TYR A  94       4.155   5.725  24.863  0.00  0.00           C
ATOM    573  OH  TYR A  94       4.515   6.887  25.452  0.00  0.00           O
ATOM    574  N   SER A  95       4.219   3.645  20.558  0.00  0.00           N
ATOM    575  CA  SER A  95       4.201   4.523  19.423  0.00  0.00           C
ATOM    576  C   SER A  95       4.848   3.936  18.224  0.00  0.00           C
ATOM    577  O   SER A  95       4.223   3.893  17.136  0.00  0.00           O
ATOM    578  CB  SER A  95       4.877   5.845  19.851  0.00  0.00           C
ATOM    579  OG  SER A  95       6.136   5.603  20.481  0.00  0.00           O
ATOM    580  N   GLY A  96       6.081   3.397  18.332  0.00  0.00           N
ATOM    581  CA  GLY A  96       6.760   2.675  17.302  0.00  0.00           C
ATOM    582  C   GLY A  96       5.986   1.534  16.776  0.00  0.00           C
ATOM    583  O   GLY A  96       5.853   1.422  15.534  0.00  0.00           O
ATOM    584  N   CYS A  97       5.410   0.653  17.626  0.00  0.00           N
ATOM    585  CA  CYS A  97       4.526  -0.406  17.213  0.00  0.00           C
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ATOM    586  C   CYS A  97       3.431   0.090  16.342  0.00  0.00           C
ATOM    587  O   CYS A  97       3.245  -0.423  15.209  0.00  0.00           O
ATOM    588  CB  CYS A  97       3.878  -1.140  18.412  0.00  0.00           C
ATOM    589  SG  CYS A  97       5.060  -1.664  19.667  0.00  0.00           S
ATOM    590  N   LEU A  98       2.653   1.108  16.777  0.00  0.00           N
ATOM    591  CA  LEU A  98       1.579   1.659  16.000  0.00  0.00           C
ATOM    592  C   LEU A  98       2.066   2.152  14.683  0.00  0.00           C
ATOM    593  O   LEU A  98       1.551   1.721  13.622  0.00  0.00           O
ATOM    594  CB  LEU A  98       0.784   2.770  16.741  0.00  0.00           C
ATOM    595  CG  LEU A  98       0.558   2.637  18.271  0.00  0.00           C
ATOM    596  CD1 LEU A  98      -0.409   3.734  18.768  0.00  0.00           C
ATOM    597  CD2 LEU A  98       0.043   1.252  18.721  0.00  0.00           C
ATOM    598  N   LEU A  99       3.108   3.011  14.621  0.00  0.00           N
ATOM    599  CA  LEU A  99       3.684   3.489  13.394  0.00  0.00           C
ATOM    600  C   LEU A  99       4.081   2.395  12.464  0.00  0.00           C
ATOM    601  O   LEU A  99       3.681   2.416  11.274  0.00  0.00           O
ATOM    602  CB  LEU A  99       4.873   4.421  13.747  0.00  0.00           C
ATOM    603  CG  LEU A  99       4.439   5.801  14.318  0.00  0.00           C
ATOM    604  CD1 LEU A  99       5.618   6.481  15.048  0.00  0.00           C
ATOM    605  CD2 LEU A  99       3.914   6.744  13.211  0.00  0.00           C
ATOM    606  N   GLN A 100       4.813   1.347  12.901  0.00  0.00           N
ATOM    607  CA  GLN A 100       5.124   0.187  12.115  0.00  0.00           C
ATOM    608  C   GLN A 100       3.928  -0.454  11.509  0.00  0.00           C
ATOM    609  O   GLN A 100       3.913  -0.669  10.271  0.00  0.00           O
ATOM    610  CB  GLN A 100       5.883  -0.786  13.042  0.00  0.00           C
ATOM    611  CG  GLN A 100       6.300  -2.119  12.374  0.00  0.00           C
ATOM    612  CD  GLN A 100       6.942  -2.980  13.369  0.00  0.00           C
ATOM    613  OE1 GLN A 100       7.983  -2.600  13.938  0.00  0.00           O
ATOM    614  NE2 GLN A 100       6.429  -4.151  13.739  0.00  0.00           N
ATOM    615  N   LEU A 101       2.867  -0.786  12.280  0.00  0.00           N
ATOM    616  CA  LEU A 101       1.640  -1.319  11.756  0.00  0.00           C
ATOM    617  C   LEU A 101       1.074  -0.467  10.676  0.00  0.00           C
ATOM    618  O   LEU A 101       0.773  -0.987   9.570  0.00  0.00           O
ATOM    619  CB  LEU A 101       0.661  -1.522  12.943  0.00  0.00           C
ATOM    620  CG  LEU A 101      -0.783  -1.952  12.565  0.00  0.00           C
ATOM    621  CD1 LEU A 101      -0.828  -3.299  11.810  0.00  0.00           C
ATOM    622  CD2 LEU A 101      -1.651  -2.044  13.839  0.00  0.00           C
ATOM    623  N   TYR A 102       0.939   0.866  10.872  0.00  0.00           N
ATOM    624  CA  TYR A 102       0.481   1.785   9.864  0.00  0.00           C
ATOM    625  C   TYR A 102       1.252   1.633   8.596  0.00  0.00           C
ATOM    626  O   TYR A 102       0.657   1.397   7.513  0.00  0.00           O
ATOM    627  CB  TYR A 102       0.581   3.257  10.356  0.00  0.00           C
ATOM    628  CG  TYR A 102      -0.006   3.640  11.664  0.00  0.00           C
ATOM    629  CD1 TYR A 102      -0.847   2.809  12.428  0.00  0.00           C
ATOM    630  CD2 TYR A 102       0.312   4.910  12.176  0.00  0.00           C
ATOM    631  CE1 TYR A 102      -1.336   3.230  13.672  0.00  0.00           C
ATOM    632  CE2 TYR A 102      -0.163   5.327  13.425  0.00  0.00           C
ATOM    633  CZ  TYR A 102      -0.997   4.491  14.172  0.00  0.00           C
ATOM    634  OH  TYR A 102      -1.471   4.905  15.366  0.00  0.00           O
ATOM    635  N   PHE A 103       2.603   1.721   8.630  0.00  0.00           N
ATOM    636  CA  PHE A 103       3.455   1.572   7.483  0.00  0.00           C
ATOM    637  C   PHE A 103       3.288   0.276   6.775  0.00  0.00           C
ATOM    638  O   PHE A 103       3.112   0.271   5.528  0.00  0.00           O
ATOM    639  CB  PHE A 103       4.940   1.779   7.879  0.00  0.00           C
ATOM    640  CG  PHE A 103       5.251   3.032   8.610  0.00  0.00           C
ATOM    641  CD1 PHE A 103       4.630   4.256   8.300  0.00  0.00           C
ATOM    642  CD2 PHE A 103       6.225   3.012   9.626  0.00  0.00           C
ATOM    643  CE1 PHE A 103       4.956   5.423   9.002  0.00  0.00           C
ATOM    644  CE2 PHE A 103       6.566   4.181  10.315  0.00  0.00           C
ATOM    645  CZ  PHE A 103       5.927   5.387  10.008  0.00  0.00           C
ATOM    646  N   PHE A 104       3.299  -0.885   7.470  0.00  0.00           N
ATOM    647  CA  PHE A 104       3.079  -2.172   6.874  0.00  0.00           C
ATOM    648  C   PHE A 104       1.832  -2.215   6.067  0.00  0.00           C
ATOM    649  O   PHE A 104       1.880  -2.574   4.864  0.00  0.00           O
ATOM    650  CB  PHE A 104       3.072  -3.252   7.988  0.00  0.00           C
ATOM    651  CG  PHE A 104       3.006  -4.632   7.452  0.00  0.00           C
ATOM    652  CD1 PHE A 104       4.074  -5.155   6.703  0.00  0.00           C
ATOM    653  CD2 PHE A 104       1.879  -5.442   7.682  0.00  0.00           C
ATOM    654  CE1 PHE A 104       4.014  -6.453   6.183  0.00  0.00           C
ATOM    655  CE2 PHE A 104       1.823  -6.745   7.170  0.00  0.00           C
ATOM    656  CZ  PHE A 104       2.890  -7.253   6.421  0.00  0.00           C
ATOM    657  N   MET A 105       0.662  -1.822   6.615  0.00  0.00           N
ATOM    658  CA  MET A 105      -0.574  -1.796   5.889  0.00  0.00           C
ATOM    659  C   MET A 105      -0.545  -0.860   4.728  0.00  0.00           C
ATOM    660  O   MET A 105      -0.947  -1.270   3.608  0.00  0.00           O
ATOM    661  CB  MET A 105      -1.723  -1.502   6.887  0.00  0.00           C
ATOM    662  CG  MET A 105      -1.940  -2.621   7.929  0.00  0.00           C
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ATOM    663  SD  MET A 105      -2.647  -4.092   7.149  0.00  0.00           S
ATOM    664  CE  MET A 105      -2.577  -5.150   8.608  0.00  0.00           C
ATOM    665  N   LEU A 106      -0.047   0.397   4.847  0.00  0.00           N
ATOM    666  CA  LEU A 106       0.115   1.314   3.746  0.00  0.00           C
ATOM    667  C   LEU A 106       0.796   0.734   2.561  0.00  0.00           C
ATOM    668  O   LEU A 106       0.259   0.857   1.427  0.00  0.00           O
ATOM    669  CB  LEU A 106       0.837   2.599   4.236  0.00  0.00           C
ATOM    670  CG  LEU A 106      -0.101   3.657   4.883  0.00  0.00           C
ATOM    671  CD1 LEU A 106       0.729   4.682   5.683  0.00  0.00           C
ATOM    672  CD2 LEU A 106      -0.930   4.419   3.825  0.00  0.00           C
ATOM    673  N   PHE A 107       1.965   0.073   2.715  0.00  0.00           N
ATOM    674  CA  PHE A 107       2.667  -0.577   1.645  0.00  0.00           C
ATOM    675  C   PHE A 107       1.837  -1.571   0.906  0.00  0.00           C
ATOM    676  O   PHE A 107       1.680  -1.433  -0.335  0.00  0.00           O
ATOM    677  CB  PHE A 107       3.955  -1.208   2.237  0.00  0.00           C
ATOM    678  CG  PHE A 107       4.748  -1.975   1.249  0.00  0.00           C
ATOM    679  CD1 PHE A 107       5.325  -1.337   0.136  0.00  0.00           C
ATOM    680  CD2 PHE A 107       4.921  -3.362   1.403  0.00  0.00           C
ATOM    681  CE1 PHE A 107       6.037  -2.079  -0.816  0.00  0.00           C
ATOM    682  CE2 PHE A 107       5.638  -4.101   0.454  0.00  0.00           C
ATOM    683  CZ  PHE A 107       6.189  -3.460  -0.661  0.00  0.00           C
ATOM    684  N   VAL A 108       1.244  -2.592   1.566  0.00  0.00           N
ATOM    685  CA  VAL A 108       0.437  -3.605   0.936  0.00  0.00           C
ATOM    686  C   VAL A 108      -0.685  -3.005   0.165  0.00  0.00           C
ATOM    687  O   VAL A 108      -0.912  -3.381  -1.014  0.00  0.00           O
ATOM    688  CB  VAL A 108      -0.059  -4.635   1.998  0.00  0.00           C
ATOM    689  CG1 VAL A 108      -0.959  -5.733   1.376  0.00  0.00           C
ATOM    690  CG2 VAL A 108       1.125  -5.331   2.713  0.00  0.00           C
ATOM    691  N   MET A 109      -1.434  -2.016   0.703  0.00  0.00           N
ATOM    692  CA  MET A 109      -2.448  -1.347  -0.056  0.00  0.00           C
ATOM    693  C   MET A 109      -1.935  -0.634  -1.246  0.00  0.00           C
ATOM    694  O   MET A 109      -2.486  -0.840  -2.359  0.00  0.00           O
ATOM    695  CB  MET A 109      -3.253  -0.370   0.829  0.00  0.00           C
ATOM    696  CG  MET A 109      -4.148  -1.061   1.872  0.00  0.00           C
ATOM    697  SD  MET A 109      -5.014  -2.524   1.270  0.00  0.00           S
ATOM    698  CE  MET A 109      -6.039  -1.871  -0.052  0.00  0.00           C
ATOM    699  N   LEU A 110      -0.894   0.225  -1.146  0.00  0.00           N
ATOM    700  CA  LEU A 110      -0.352   0.912  -2.279  0.00  0.00           C
ATOM    701  C   LEU A 110       0.011  -0.023  -3.364  0.00  0.00           C
ATOM    702  O   LEU A 110      -0.382   0.232  -4.529  0.00  0.00           O
ATOM    703  CB  LEU A 110       0.862   1.767  -1.852  0.00  0.00           C
ATOM    704  CG  LEU A 110       1.420   2.687  -2.971  0.00  0.00           C
ATOM    705  CD1 LEU A 110       0.391   3.733  -3.462  0.00  0.00           C
ATOM    706  CD2 LEU A 110       2.682   3.404  -2.458  0.00  0.00           C
ATOM    707  N   GLU A 111       0.682  -1.162  -3.078  0.00  0.00           N
ATOM    708  CA  GLU A 111       0.922  -2.187  -4.045  0.00  0.00           C
ATOM    709  C   GLU A 111      -0.327  -2.572  -4.756  0.00  0.00           C
ATOM    710  O   GLU A 111      -0.441  -2.317  -5.981  0.00  0.00           O
ATOM    711  CB  GLU A 111       1.584  -3.397  -3.339  0.00  0.00           C
ATOM    712  CG  GLU A 111       1.868  -4.568  -4.313  0.00  0.00           C
ATOM    713  CD  GLU A 111       2.149  -5.857  -3.683  0.00  0.00           C
ATOM    714  OE1 GLU A 111       2.339  -5.994  -2.457  0.00  0.00           O
ATOM    715  OE2 GLU A 111       2.220  -6.861  -4.420  0.00  0.00           O1-
ATOM    716  N   ALA A 112      -1.354  -3.163  -4.107  0.00  0.00           N
ATOM    717  CA  ALA A 112      -2.536  -3.619  -4.780  0.00  0.00           C
ATOM    718  C   ALA A 112      -3.189  -2.572  -5.615  0.00  0.00           C
ATOM    719  O   ALA A 112      -3.567  -2.839  -6.786  0.00  0.00           O
ATOM    720  CB  ALA A 112      -3.488  -4.224  -3.735  0.00  0.00           C
ATOM    721  N   PHE A 113      -3.308  -1.310  -5.150  0.00  0.00           N
ATOM    722  CA  PHE A 113      -3.813  -0.231  -5.948  0.00  0.00           C
ATOM    723  C   PHE A 113      -2.978   0.103  -7.137  0.00  0.00           C
ATOM    724  O   PHE A 113      -3.537   0.229  -8.257  0.00  0.00           O
ATOM    725  CB  PHE A 113      -4.063   1.000  -5.044  0.00  0.00           C
ATOM    726  CG  PHE A 113      -5.153   0.795  -4.058  0.00  0.00           C
ATOM    727  CD1 PHE A 113      -6.430   0.354  -4.457  0.00  0.00           C
ATOM    728  CD2 PHE A 113      -4.935   1.062  -2.696  0.00  0.00           C
ATOM    729  CE1 PHE A 113      -7.451   0.154  -3.521  0.00  0.00           C
ATOM    730  CE2 PHE A 113      -5.964   0.884  -1.763  0.00  0.00           C
ATOM    731  CZ  PHE A 113      -7.220   0.422  -2.169  0.00  0.00           C
ATOM    732  N   LEU A 114      -1.635   0.238  -7.069  0.00  0.00           N
ATOM    733  CA  LEU A 114      -0.807   0.426  -8.230  0.00  0.00           C
ATOM    734  C   LEU A 114      -0.916  -0.681  -9.213  0.00  0.00           C
ATOM    735  O   LEU A 114      -0.995  -0.427 -10.440  0.00  0.00           O
ATOM    736  CB  LEU A 114       0.669   0.620  -7.811  0.00  0.00           C
ATOM    737  CG  LEU A 114       0.963   1.977  -7.121  0.00  0.00           C
ATOM    738  CD1 LEU A 114       2.432   1.995  -6.653  0.00  0.00           C
ATOM    739  CD2 LEU A 114       0.684   3.181  -8.051  0.00  0.00           C
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ATOM    740  N   LEU A 115      -0.970  -1.959  -8.789  0.00  0.00           N
ATOM    741  CA  LEU A 115      -1.232  -3.080  -9.643  0.00  0.00           C
ATOM    742  C   LEU A 115      -2.515  -2.924 -10.389  0.00  0.00           C
ATOM    743  O   LEU A 115      -2.531  -3.055 -11.640  0.00  0.00           O
ATOM    744  CB  LEU A 115      -1.219  -4.346  -8.752  0.00  0.00           C
ATOM    745  CG  LEU A 115       0.180  -4.929  -8.419  0.00  0.00           C
ATOM    746  CD1 LEU A 115       1.289  -3.937  -8.000  0.00  0.00           C
ATOM    747  CD2 LEU A 115       0.029  -6.008  -7.341  0.00  0.00           C
ATOM    748  N   ALA A 116      -3.650  -2.585  -9.736  0.00  0.00           N
ATOM    749  CA  ALA A 116      -4.879  -2.237 -10.396  0.00  0.00           C
ATOM    750  C   ALA A 116      -4.730  -1.150 -11.407  0.00  0.00           C
ATOM    751  O   ALA A 116      -5.144  -1.328 -12.580  0.00  0.00           O
ATOM    752  CB  ALA A 116      -5.916  -1.872  -9.316  0.00  0.00           C
ATOM    753  N   VAL A 117      -4.101   0.006 -11.091  0.00  0.00           N
ATOM    754  CA  VAL A 117      -3.787   1.038 -12.049  0.00  0.00           C
ATOM    755  C   VAL A 117      -3.082   0.501 -13.240  0.00  0.00           C
ATOM    756  O   VAL A 117      -3.549   0.742 -14.379  0.00  0.00           O
ATOM    757  CB  VAL A 117      -3.003   2.192 -11.350  0.00  0.00           C
ATOM    758  CG1 VAL A 117      -2.130   3.047 -12.302  0.00  0.00           C
ATOM    759  CG2 VAL A 117      -3.984   3.122 -10.603  0.00  0.00           C
ATOM    760  N   MET A 118      -1.968  -0.252 -13.104  0.00  0.00           N
ATOM    761  CA  MET A 118      -1.260  -0.856 -14.195  0.00  0.00           C
ATOM    762  C   MET A 118      -2.145  -1.674 -15.073  0.00  0.00           C
ATOM    763  O   MET A 118      -2.113  -1.503 -16.319  0.00  0.00           O
ATOM    764  CB  MET A 118      -0.080  -1.664 -13.603  0.00  0.00           C
ATOM    765  CG  MET A 118       1.016  -1.974 -14.645  0.00  0.00           C
ATOM    766  SD  MET A 118       2.390  -2.864 -13.884  0.00  0.00           S
ATOM    767  CE  MET A 118       3.265  -1.477 -13.138  0.00  0.00           C
ATOM    768  N   ALA A 119      -3.029  -2.544 -14.531  0.00  0.00           N
ATOM    769  CA  ALA A 119      -4.040  -3.239 -15.283  0.00  0.00           C
ATOM    770  C   ALA A 119      -4.875  -2.350 -16.132  0.00  0.00           C
ATOM    771  O   ALA A 119      -4.972  -2.550 -17.370  0.00  0.00           O
ATOM    772  CB  ALA A 119      -4.968  -4.007 -14.314  0.00  0.00           C
ATOM    773  N   TYR A 120      -5.541  -1.332 -15.545  0.00  0.00           N
ATOM    774  CA  TYR A 120      -6.401  -0.429 -16.254  0.00  0.00           C
ATOM    775  C   TYR A 120      -5.683   0.345 -17.297  0.00  0.00           C
ATOM    776  O   TYR A 120      -6.184   0.441 -18.445  0.00  0.00           O
ATOM    777  CB  TYR A 120      -7.154   0.495 -15.264  0.00  0.00           C
ATOM    778  CG  TYR A 120      -7.836  -0.208 -14.151  0.00  0.00           C
ATOM    779  CD1 TYR A 120      -8.595  -1.376 -14.359  0.00  0.00           C
ATOM    780  CD2 TYR A 120      -7.744   0.307 -12.846  0.00  0.00           C
ATOM    781  CE1 TYR A 120      -9.213  -2.032 -13.286  0.00  0.00           C
ATOM    782  CE2 TYR A 120      -8.378  -0.337 -11.775  0.00  0.00           C
ATOM    783  CZ  TYR A 120      -9.105  -1.512 -11.992  0.00  0.00           C
ATOM    784  OH  TYR A 120      -9.699  -2.136 -10.953  0.00  0.00           O
ATOM    785  N   ASP A 121      -4.464   0.866 -17.036  0.00  0.00           N
ATOM    786  CA  ASP A 121      -3.591   1.449 -18.010  0.00  0.00           C
ATOM    787  C   ASP A 121      -3.377   0.545 -19.171  0.00  0.00           C
ATOM    788  O   ASP A 121      -3.644   0.964 -20.324  0.00  0.00           O
ATOM    789  CB  ASP A 121      -2.282   1.822 -17.269  0.00  0.00           C
ATOM    790  CG  ASP A 121      -1.133   2.014 -18.151  0.00  0.00           C
ATOM    791  OD1 ASP A 121      -1.122   2.903 -19.029  0.00  0.00           O
ATOM    792  OD2 ASP A 121      -0.130   1.268 -18.077  0.00  0.00           O1-
ATOM    793  N   CYS A 122      -2.932  -0.721 -18.997  0.00  0.00           N
ATOM    794  CA  CYS A 122      -2.789  -1.662 -20.074  0.00  0.00           C
ATOM    795  C   CYS A 122      -4.045  -1.838 -20.848  0.00  0.00           C
ATOM    796  O   CYS A 122      -4.010  -1.725 -22.099  0.00  0.00           O
ATOM    797  CB  CYS A 122      -2.294  -3.031 -19.556  0.00  0.00           C
ATOM    798  SG  CYS A 122      -0.708  -2.904 -18.709  0.00  0.00           S
ATOM    799  N   TYR A 123      -5.213  -2.086 -20.212  0.00  0.00           N
ATOM    800  CA  TYR A 123      -6.480  -2.194 -20.879  0.00  0.00           C
ATOM    801  C   TYR A 123      -6.781  -1.008 -21.723  0.00  0.00           C
ATOM    802  O   TYR A 123      -7.050  -1.186 -22.935  0.00  0.00           O
ATOM    803  CB  TYR A 123      -7.592  -2.469 -19.833  0.00  0.00           C
ATOM    804  CG  TYR A 123      -8.826  -3.029 -20.435  0.00  0.00           C
ATOM    805  CD1 TYR A 123      -9.715  -2.220 -21.166  0.00  0.00           C
ATOM    806  CD2 TYR A 123      -9.131  -4.393 -20.281  0.00  0.00           C
ATOM    807  CE1 TYR A 123     -10.868  -2.767 -21.746  0.00  0.00           C
ATOM    808  CE2 TYR A 123     -10.281  -4.943 -20.861  0.00  0.00           C
ATOM    809  CZ  TYR A 123     -11.150  -4.130 -21.596  0.00  0.00           C
ATOM    810  OH  TYR A 123     -12.258  -4.664 -22.153  0.00  0.00           O
ATOM    811  N   VAL A 124      -6.726   0.245 -21.216  0.00  0.00           N
ATOM    812  CA  VAL A 124      -6.910   1.439 -21.996  0.00  0.00           C
ATOM    813  C   VAL A 124      -5.949   1.504 -23.124  0.00  0.00           C
ATOM    814  O   VAL A 124      -6.402   1.678 -24.280  0.00  0.00           O
ATOM    815  CB  VAL A 124      -6.848   2.697 -21.076  0.00  0.00           C
ATOM    816  CG1 VAL A 124      -6.637   4.024 -21.848  0.00  0.00           C
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ATOM    817  CG2 VAL A 124      -8.147   2.819 -20.246  0.00  0.00           C
ATOM    818  N   ALA A 125      -4.620   1.350 -22.933  0.00  0.00           N
ATOM    819  CA  ALA A 125      -3.653   1.370 -23.988  0.00  0.00           C
ATOM    820  C   ALA A 125      -3.974   0.427 -25.087  0.00  0.00           C
ATOM    821  O   ALA A 125      -3.930   0.834 -26.270  0.00  0.00           O
ATOM    822  CB  ALA A 125      -2.265   1.059 -23.396  0.00  0.00           C
ATOM    823  N   ILE A 126      -4.328  -0.846 -24.810  0.00  0.00           N
ATOM    824  CA  ILE A 126      -4.770  -1.792 -25.794  0.00  0.00           C
ATOM    825  C   ILE A 126      -6.058  -1.412 -26.428  0.00  0.00           C
ATOM    826  O   ILE A 126      -6.105  -1.404 -27.681  0.00  0.00           O
ATOM    827  CB  ILE A 126      -4.782  -3.211 -25.141  0.00  0.00           C
ATOM    828  CG1 ILE A 126      -3.334  -3.743 -24.933  0.00  0.00           C
ATOM    829  CG2 ILE A 126      -5.652  -4.258 -25.884  0.00  0.00           C
ATOM    830  CD1 ILE A 126      -2.597  -4.193 -26.215  0.00  0.00           C
ATOM    831  N   CYS A 127      -7.177  -1.120 -25.727  0.00  0.00           N
ATOM    832  CA  CYS A 127      -8.440  -0.866 -26.358  0.00  0.00           C
ATOM    833  C   CYS A 127      -8.576   0.450 -27.025  0.00  0.00           C
ATOM    834  O   CYS A 127      -9.376   0.523 -27.988  0.00  0.00           O
ATOM    835  CB  CYS A 127      -9.612  -1.117 -25.380  0.00  0.00           C
ATOM    836  SG  CYS A 127      -9.962   0.270 -24.275  0.00  0.00           S
ATOM    837  N   HIS A 128      -7.963   1.574 -26.581  0.00  0.00           N
ATOM    838  CA  HIS A 128      -8.168   2.872 -27.156  0.00  0.00           C
ATOM    839  C   HIS A 128      -6.940   3.566 -27.635  0.00  0.00           C
ATOM    840  O   HIS A 128      -6.772   4.762 -27.294  0.00  0.00           O
ATOM    841  CB  HIS A 128      -8.997   3.732 -26.155  0.00  0.00           C
ATOM    842  CG  HIS A 128     -10.440   3.459 -26.199  0.00  0.00           C
ATOM    843  ND1 HIS A 128     -11.037   2.424 -26.799  0.00  0.00           N
ATOM    844  CD2 HIS A 128     -11.451   4.254 -25.676  0.00  0.00           C
ATOM    845  CE1 HIS A 128     -12.364   2.574 -26.690  0.00  0.00           C
ATOM    846  NE2 HIS A 128     -12.628   3.705 -26.011  0.00  0.00           N
ATOM    847  N   PRO A 129      -6.106   3.076 -28.596  0.00  0.00           N1+
ATOM    848  CA  PRO A 129      -5.313   3.942 -29.428  0.00  0.00           C
ATOM    849  C   PRO A 129      -6.176   4.510 -30.465  0.00  0.00           C
ATOM    850  O   PRO A 129      -5.920   4.426 -31.656  0.00  0.00           O
ATOM    851  CB  PRO A 129      -4.204   2.997 -29.927  0.00  0.00           C
ATOM    852  CG  PRO A 129      -4.899   1.633 -30.020  0.00  0.00           C
ATOM    853  CD  PRO A 129      -6.020   1.703 -28.972  0.00  0.00           C
ATOM    854  N   LEU A 130      -7.303   5.051 -30.050  0.00  0.00           N
ATOM    855  CA  LEU A 130      -8.430   5.431 -30.845  0.00  0.00           C
ATOM    856  C   LEU A 130      -8.832   6.816 -30.528  0.00  0.00           C
ATOM    857  O   LEU A 130      -8.486   7.733 -31.309  0.00  0.00           O
ATOM    858  CB  LEU A 130      -9.548   4.388 -30.573  0.00  0.00           C
ATOM    859  CG  LEU A 130     -10.871   4.593 -31.358  0.00  0.00           C
ATOM    860  CD1 LEU A 130     -10.678   4.412 -32.880  0.00  0.00           C
ATOM    861  CD2 LEU A 130     -11.936   3.600 -30.846  0.00  0.00           C
ATOM    862  N   HIS A 131      -9.501   7.104 -29.386  0.00  0.00           N
ATOM    863  CA  HIS A 131      -9.858   8.423 -28.937  0.00  0.00           C
ATOM    864  C   HIS A 131      -8.673   9.105 -28.351  0.00  0.00           C
ATOM    865  O   HIS A 131      -8.728   9.816 -27.312  0.00  0.00           O
ATOM    866  CB  HIS A 131     -11.049   8.293 -27.949  0.00  0.00           C
ATOM    867  CG  HIS A 131     -12.212   7.599 -28.534  0.00  0.00           C
ATOM    868  ND1 HIS A 131     -12.765   6.450 -28.113  0.00  0.00           N
ATOM    869  CD2 HIS A 131     -12.959   8.014 -29.632  0.00  0.00           C
ATOM    870  CE1 HIS A 131     -13.803   6.163 -28.910  0.00  0.00           C
ATOM    871  NE2 HIS A 131     -13.929   7.114 -29.848  0.00  0.00           N
ATOM    872  N   TYR A 132      -7.505   8.929 -29.005  0.00  0.00           N
ATOM    873  CA  TYR A 132      -6.207   9.270 -28.524  0.00  0.00           C
ATOM    874  C   TYR A 132      -5.876  10.685 -28.788  0.00  0.00           C
ATOM    875  O   TYR A 132      -4.836  11.072 -29.365  0.00  0.00           O
ATOM    876  CB  TYR A 132      -5.167   8.218 -28.991  0.00  0.00           C
ATOM    877  CG  TYR A 132      -3.960   8.261 -28.134  0.00  0.00           C
ATOM    878  CD1 TYR A 132      -4.079   8.002 -26.758  0.00  0.00           C
ATOM    879  CD2 TYR A 132      -2.698   8.599 -28.653  0.00  0.00           C
ATOM    880  CE1 TYR A 132      -2.992   8.194 -25.905  0.00  0.00           C
ATOM    881  CE2 TYR A 132      -1.594   8.744 -27.798  0.00  0.00           C
ATOM    882  CZ  TYR A 132      -1.750   8.576 -26.417  0.00  0.00           C
ATOM    883  OH  TYR A 132      -0.737   8.798 -25.553  0.00  0.00           O
ATOM    884  N   ILE A 133      -6.769  11.533 -28.261  0.00  0.00           N
ATOM    885  CA  ILE A 133      -6.637  12.930 -28.056  0.00  0.00           C
ATOM    886  C   ILE A 133      -6.672  13.122 -26.580  0.00  0.00           C
ATOM    887  O   ILE A 133      -6.084  14.114 -26.093  0.00  0.00           O
ATOM    888  CB  ILE A 133      -7.746  13.709 -28.835  0.00  0.00           C
ATOM    889  CG1 ILE A 133      -7.755  13.398 -30.363  0.00  0.00           C
ATOM    890  CG2 ILE A 133      -7.592  15.240 -28.652  0.00  0.00           C
ATOM    891  CD1 ILE A 133      -8.693  12.238 -30.756  0.00  0.00           C
ATOM    892  N   LEU A 134      -7.298  12.233 -25.764  0.00  0.00           N
ATOM    893  CA  LEU A 134      -7.386  12.373 -24.335  0.00  0.00           C
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ATOM    894  C   LEU A 134      -6.738  11.281 -23.552  0.00  0.00           C
ATOM    895  O   LEU A 134      -5.849  11.563 -22.718  0.00  0.00           O
ATOM    896  CB  LEU A 134      -8.881  12.464 -23.902  0.00  0.00           C
ATOM    897  CG  LEU A 134      -9.698  13.741 -24.249  0.00  0.00           C
ATOM    898  CD1 LEU A 134      -9.009  15.048 -23.802  0.00  0.00           C
ATOM    899  CD2 LEU A 134     -10.104  13.825 -25.734  0.00  0.00           C
ATOM    900  N   ILE A 135      -7.200  10.014 -23.615  0.00  0.00           N
ATOM    901  CA  ILE A 135      -7.157   9.058 -22.538  0.00  0.00           C
ATOM    902  C   ILE A 135      -5.883   8.532 -21.967  0.00  0.00           C
ATOM    903  O   ILE A 135      -5.988   7.923 -20.877  0.00  0.00           O
ATOM    904  CB  ILE A 135      -8.137   7.880 -22.846  0.00  0.00           C
ATOM    905  CG1 ILE A 135      -7.680   6.932 -23.991  0.00  0.00           C
ATOM    906  CG2 ILE A 135      -9.596   8.368 -23.036  0.00  0.00           C
ATOM    907  CD1 ILE A 135      -7.783   7.507 -25.414  0.00  0.00           C
ATOM    908  N   MET A 136      -4.641   8.640 -22.496  0.00  0.00           N
ATOM    909  CA  MET A 136      -3.463   8.146 -21.821  0.00  0.00           C
ATOM    910  C   MET A 136      -2.334   9.102 -21.931  0.00  0.00           C
ATOM    911  O   MET A 136      -1.519   9.024 -22.883  0.00  0.00           O
ATOM    912  CB  MET A 136      -3.111   6.701 -22.278  0.00  0.00           C
ATOM    913  CG  MET A 136      -1.945   6.078 -21.469  0.00  0.00           C
ATOM    914  SD  MET A 136      -1.474   4.416 -22.010  0.00  0.00           S
ATOM    915  CE  MET A 136      -0.796   4.839 -23.630  0.00  0.00           C
ATOM    916  N   SER A 137      -2.187  10.049 -20.978  0.00  0.00           N1+
ATOM    917  CA  SER A 137      -1.139  11.026 -20.930  0.00  0.00           C
ATOM    918  C   SER A 137      -0.421  11.073 -19.619  0.00  0.00           C
ATOM    919  O   SER A 137      -0.923  10.492 -18.622  0.00  0.00           O
ATOM    920  CB  SER A 137      -1.777  12.398 -21.256  0.00  0.00           C
ATOM    921  OG  SER A 137      -2.528  12.893 -20.146  0.00  0.00           O
ATOM    922  N   PRO A 138       0.746  11.758 -19.432  0.00  0.00           N
ATOM    923  CA  PRO A 138       1.384  11.890 -18.147  0.00  0.00           C
ATOM    924  C   PRO A 138       0.544  12.498 -17.086  0.00  0.00           C
ATOM    925  O   PRO A 138       0.560  11.999 -15.939  0.00  0.00           O
ATOM    926  CB  PRO A 138       2.658  12.715 -18.415  0.00  0.00           C
ATOM    927  CG  PRO A 138       2.900  12.539 -19.915  0.00  0.00           C
ATOM    928  CD  PRO A 138       1.484  12.397 -20.478  0.00  0.00           C
ATOM    929  N   GLY A 139      -0.270  13.545 -17.346  0.00  0.00           N
ATOM    930  CA  GLY A 139      -1.181  14.112 -16.391  0.00  0.00           C
ATOM    931  C   GLY A 139      -2.104  13.122 -15.799  0.00  0.00           C
ATOM    932  O   GLY A 139      -2.263  13.047 -14.557  0.00  0.00           O
ATOM    933  N   LEU A 140      -2.735  12.260 -16.619  0.00  0.00           N
ATOM    934  CA  LEU A 140      -3.558  11.187 -16.165  0.00  0.00           C
ATOM    935  C   LEU A 140      -2.769  10.185 -15.412  0.00  0.00           C
ATOM    936  O   LEU A 140      -3.215   9.786 -14.314  0.00  0.00           O
ATOM    937  CB  LEU A 140      -4.314  10.570 -17.364  0.00  0.00           C
ATOM    938  CG  LEU A 140      -5.180  11.596 -18.149  0.00  0.00           C
ATOM    939  CD1 LEU A 140      -5.814  10.917 -19.377  0.00  0.00           C
ATOM    940  CD2 LEU A 140      -6.286  12.240 -17.283  0.00  0.00           C
ATOM    941  N   CYS A 141      -1.553   9.764 -15.831  0.00  0.00           N
ATOM    942  CA  CYS A 141      -0.688   8.957 -15.009  0.00  0.00           C
ATOM    943  C   CYS A 141      -0.508   9.534 -13.644  0.00  0.00           C
ATOM    944  O   CYS A 141      -0.797   8.840 -12.642  0.00  0.00           O
ATOM    945  CB  CYS A 141       0.678   8.709 -15.692  0.00  0.00           C
ATOM    946  SG  CYS A 141       0.506   8.001 -17.346  0.00  0.00           S
ATOM    947  N   ILE A 142      -0.123  10.819 -13.471  0.00  0.00           N
ATOM    948  CA  ILE A 142      -0.043  11.489 -12.193  0.00  0.00           C
ATOM    949  C   ILE A 142      -1.322  11.384 -11.433  0.00  0.00           C
ATOM    950  O   ILE A 142      -1.305  10.954 -10.253  0.00  0.00           O
ATOM    951  CB  ILE A 142       0.409  12.975 -12.370  0.00  0.00           C
ATOM    952  CG1 ILE A 142       1.815  13.059 -13.029  0.00  0.00           C
ATOM    953  CG2 ILE A 142       0.425  13.736 -11.017  0.00  0.00           C
ATOM    954  CD1 ILE A 142       2.191  14.466 -13.538  0.00  0.00           C
ATOM    955  N   PHE A 143      -2.501  11.717 -12.003  0.00  0.00           N
ATOM    956  CA  PHE A 143      -3.776  11.530 -11.364  0.00  0.00           C
ATOM    957  C   PHE A 143      -3.991  10.142 -10.860  0.00  0.00           C
ATOM    958  O   PHE A 143      -4.373   9.966  -9.679  0.00  0.00           O
ATOM    959  CB  PHE A 143      -4.883  11.969 -12.355  0.00  0.00           C
ATOM    960  CG  PHE A 143      -6.227  12.056 -11.742  0.00  0.00           C
ATOM    961  CD1 PHE A 143      -6.505  13.026 -10.763  0.00  0.00           C
ATOM    962  CD2 PHE A 143      -7.250  11.178 -12.141  0.00  0.00           C
ATOM    963  CE1 PHE A 143      -7.781  13.115 -10.192  0.00  0.00           C
ATOM    964  CE2 PHE A 143      -8.526  11.269 -11.572  0.00  0.00           C
ATOM    965  CZ  PHE A 143      -8.793  12.237 -10.597  0.00  0.00           C
ATOM    966  N   LEU A 144      -3.738   9.069 -11.642  0.00  0.00           N
ATOM    967  CA  LEU A 144      -3.794   7.700 -11.199  0.00  0.00           C
ATOM    968  C   LEU A 144      -2.898   7.422 -10.040  0.00  0.00           C
ATOM    969  O   LEU A 144      -3.335   6.789  -9.047  0.00  0.00           O
ATOM    970  CB  LEU A 144      -3.473   6.745 -12.380  0.00  0.00           C
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ATOM    971  CG  LEU A 144      -4.440   6.836 -13.593  0.00  0.00           C
ATOM    972  CD1 LEU A 144      -3.905   5.988 -14.769  0.00  0.00           C
ATOM    973  CD2 LEU A 144      -5.879   6.397 -13.246  0.00  0.00           C
ATOM    974  N   VAL A 145      -1.625   7.877 -10.024  0.00  0.00           N
ATOM    975  CA  VAL A 145      -0.756   7.798  -8.875  0.00  0.00           C
ATOM    976  C   VAL A 145      -1.379   8.423  -7.675  0.00  0.00           C
ATOM    977  O   VAL A 145      -1.502   7.762  -6.614  0.00  0.00           O
ATOM    978  CB  VAL A 145       0.631   8.434  -9.196  0.00  0.00           C
ATOM    979  CG1 VAL A 145       1.618   8.356  -8.006  0.00  0.00           C
ATOM    980  CG2 VAL A 145       1.289   7.737 -10.401  0.00  0.00           C
ATOM    981  N   SER A 146      -1.851   9.687  -7.734  0.00  0.00           N
ATOM    982  CA  SER A 146      -2.538  10.332  -6.648  0.00  0.00           C
ATOM    983  C   SER A 146      -3.709   9.560  -6.161  0.00  0.00           C
ATOM    984  O   SER A 146      -3.823   9.322  -4.934  0.00  0.00           O
ATOM    985  CB  SER A 146      -2.960  11.759  -7.058  0.00  0.00           C
ATOM    986  OG  SER A 146      -1.821  12.546  -7.398  0.00  0.00           O
ATOM    987  N   ALA A 147      -4.616   9.064  -7.032  0.00  0.00           N
ATOM    988  CA  ALA A 147      -5.682   8.176  -6.671  0.00  0.00           C
ATOM    989  C   ALA A 147      -5.206   6.980  -5.929  0.00  0.00           C
ATOM    990  O   ALA A 147      -5.736   6.693  -4.832  0.00  0.00           O
ATOM    991  CB  ALA A 147      -6.453   7.777  -7.945  0.00  0.00           C
ATOM    992  N   SER A 148      -4.182   6.234  -6.399  0.00  0.00           N
ATOM    993  CA  SER A 148      -3.584   5.132  -5.693  0.00  0.00           C
ATOM    994  C   SER A 148      -3.193   5.468  -4.301  0.00  0.00           C
ATOM    995  O   SER A 148      -3.623   4.768  -3.352  0.00  0.00           O
ATOM    996  CB  SER A 148      -2.367   4.588  -6.471  0.00  0.00           C
ATOM    997  OG  SER A 148      -2.694   4.349  -7.837  0.00  0.00           O
ATOM    998  N   TRP A 149      -2.423   6.552  -4.057  0.00  0.00           N
ATOM    999  CA  TRP A 149      -2.105   7.018  -2.733  0.00  0.00           C
ATOM   1000  C   TRP A 149      -3.313   7.335  -1.922  0.00  0.00           C
ATOM   1001  O   TRP A 149      -3.414   6.867  -0.764  0.00  0.00           O
ATOM   1002  CB  TRP A 149      -1.160   8.240  -2.818  0.00  0.00           C
ATOM   1003  CG  TRP A 149       0.113   7.931  -3.500  0.00  0.00           C
ATOM   1004  CD1 TRP A 149       0.254   7.476  -4.809  0.00  0.00           C
ATOM   1005  CD2 TRP A 149       1.407   8.070  -3.005  0.00  0.00           C
ATOM   1006  NE1 TRP A 149       1.560   7.342  -5.099  0.00  0.00           N
ATOM   1007  CE2 TRP A 149       2.278   7.708  -4.029  0.00  0.00           C
ATOM   1008  CE3 TRP A 149       1.902   8.497  -1.766  0.00  0.00           C
ATOM   1009  CZ2 TRP A 149       3.664   7.772  -3.866  0.00  0.00           C
ATOM   1010  CZ3 TRP A 149       3.292   8.565  -1.588  0.00  0.00           C
ATOM   1011  CH2 TRP A 149       4.165   8.215  -2.632  0.00  0.00           C
ATOM   1012  N   ILE A 150      -4.328   8.086  -2.406  0.00  0.00           N
ATOM   1013  CA  ILE A 150      -5.563   8.310  -1.691  0.00  0.00           C
ATOM   1014  C   ILE A 150      -6.207   7.032  -1.284  0.00  0.00           C
ATOM   1015  O   ILE A 150      -6.546   6.866  -0.086  0.00  0.00           O
ATOM   1016  CB  ILE A 150      -6.507   9.229  -2.528  0.00  0.00           C
ATOM   1017  CG1 ILE A 150      -5.942  10.678  -2.546  0.00  0.00           C
ATOM   1018  CG2 ILE A 150      -7.968   9.221  -2.000  0.00  0.00           C
ATOM   1019  CD1 ILE A 150      -6.652  11.629  -3.530  0.00  0.00           C
ATOM   1020  N   MET A 151      -6.413   6.046  -2.181  0.00  0.00           N
ATOM   1021  CA  MET A 151      -6.963   4.766  -1.844  0.00  0.00           C
ATOM   1022  C   MET A 151      -6.167   4.062  -0.801  0.00  0.00           C
ATOM   1023  O   MET A 151      -6.766   3.570   0.190  0.00  0.00           O
ATOM   1024  CB  MET A 151      -7.122   3.912  -3.124  0.00  0.00           C
ATOM   1025  CG  MET A 151      -8.153   4.475  -4.128  0.00  0.00           C
ATOM   1026  SD  MET A 151      -8.562   3.283  -5.427  0.00  0.00           S
ATOM   1027  CE  MET A 151      -7.043   3.403  -6.394  0.00  0.00           C
ATOM   1028  N   ASN A 152      -4.815   3.981  -0.881  0.00  0.00           N
ATOM   1029  CA  ASN A 152      -3.986   3.437   0.162  0.00  0.00           C
ATOM   1030  C   ASN A 152      -4.222   4.108   1.466  0.00  0.00           C
ATOM   1031  O   ASN A 152      -4.601   3.409   2.440  0.00  0.00           O
ATOM   1032  CB  ASN A 152      -2.509   3.305  -0.319  0.00  0.00           C
ATOM   1033  CG  ASN A 152      -1.461   4.109   0.325  0.00  0.00           C
ATOM   1034  OD1 ASN A 152      -1.487   5.353   0.310  0.00  0.00           O
ATOM   1035  ND2 ASN A 152      -0.391   3.566   0.914  0.00  0.00           N
ATOM   1036  N   ALA A 153      -4.148   5.451   1.584  0.00  0.00           N
ATOM   1037  CA  ALA A 153      -4.462   6.172   2.783  0.00  0.00           C
ATOM   1038  C   ALA A 153      -5.794   5.818   3.338  0.00  0.00           C
ATOM   1039  O   ALA A 153      -5.890   5.447   4.535  0.00  0.00           O
ATOM   1040  CB  ALA A 153      -4.355   7.683   2.493  0.00  0.00           C
ATOM   1041  N   LEU A 154      -6.886   5.843   2.541  0.00  0.00           N
ATOM   1042  CA  LEU A 154      -8.193   5.442   2.965  0.00  0.00           C
ATOM   1043  C   LEU A 154      -8.218   4.073   3.539  0.00  0.00           C
ATOM   1044  O   LEU A 154      -8.632   3.926   4.713  0.00  0.00           O
ATOM   1045  CB  LEU A 154      -9.176   5.576   1.773  0.00  0.00           C
ATOM   1046  CG  LEU A 154     -10.661   5.269   2.117  0.00  0.00           C
ATOM   1047  CD1 LEU A 154     -11.257   6.294   3.108  0.00  0.00           C
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ATOM   1048  CD2 LEU A 154     -11.508   5.234   0.827  0.00  0.00           C
ATOM   1049  N   HIS A 155      -7.809   2.995   2.833  0.00  0.00           N
ATOM   1050  CA  HIS A 155      -7.893   1.665   3.370  0.00  0.00           C
ATOM   1051  C   HIS A 155      -6.952   1.398   4.483  0.00  0.00           C
ATOM   1052  O   HIS A 155      -7.333   0.598   5.368  0.00  0.00           O
ATOM   1053  CB  HIS A 155      -7.770   0.581   2.267  0.00  0.00           C
ATOM   1054  CG  HIS A 155      -9.082   0.204   1.710  0.00  0.00           C
ATOM   1055  ND1 HIS A 155      -9.649  -1.015   1.725  0.00  0.00           N
ATOM   1056  CD2 HIS A 155      -9.985   1.053   1.079  0.00  0.00           C
ATOM   1057  CE1 HIS A 155     -10.858  -0.919   1.152  0.00  0.00           C
ATOM   1058  NE2 HIS A 155     -11.072   0.343   0.747  0.00  0.00           N
ATOM   1059  N   SER A 156      -5.714   1.933   4.565  0.00  0.00           N
ATOM   1060  CA  SER A 156      -4.773   1.550   5.582  0.00  0.00           C
ATOM   1061  C   SER A 156      -4.290   2.570   6.535  0.00  0.00           C
ATOM   1062  O   SER A 156      -3.702   2.140   7.554  0.00  0.00           O
ATOM   1063  CB  SER A 156      -3.576   0.901   4.877  0.00  0.00           C
ATOM   1064  OG  SER A 156      -2.974   1.760   3.919  0.00  0.00           O
ATOM   1065  N   LEU A 157      -4.471   3.902   6.410  0.00  0.00           N
ATOM   1066  CA  LEU A 157      -4.026   4.846   7.391  0.00  0.00           C
ATOM   1067  C   LEU A 157      -5.183   5.226   8.223  0.00  0.00           C
ATOM   1068  O   LEU A 157      -5.117   5.144   9.474  0.00  0.00           O
ATOM   1069  CB  LEU A 157      -3.396   6.056   6.656  0.00  0.00           C
ATOM   1070  CG  LEU A 157      -2.859   7.190   7.566  0.00  0.00           C
ATOM   1071  CD1 LEU A 157      -1.665   6.736   8.436  0.00  0.00           C
ATOM   1072  CD2 LEU A 157      -2.453   8.402   6.700  0.00  0.00           C
ATOM   1073  N   LEU A 158      -6.320   5.622   7.611  0.00  0.00           N
ATOM   1074  CA  LEU A 158      -7.495   6.020   8.322  0.00  0.00           C
ATOM   1075  C   LEU A 158      -7.973   4.977   9.254  0.00  0.00           C
ATOM   1076  O   LEU A 158      -8.143   5.302  10.449  0.00  0.00           O
ATOM   1077  CB  LEU A 158      -8.614   6.450   7.339  0.00  0.00           C
ATOM   1078  CG  LEU A 158      -8.615   7.953   6.950  0.00  0.00           C
ATOM   1079  CD1 LEU A 158      -8.935   8.867   8.156  0.00  0.00           C
ATOM   1080  CD2 LEU A 158      -7.305   8.396   6.263  0.00  0.00           C
ATOM   1081  N   HIS A 159      -8.186   3.699   8.868  0.00  0.00           N
ATOM   1082  CA  HIS A 159      -8.606   2.662   9.766  0.00  0.00           C
ATOM   1083  C   HIS A 159      -7.740   2.524  10.923  0.00  0.00           C
ATOM   1084  O   HIS A 159      -8.240   2.633  12.033  0.00  0.00           O
ATOM   1085  CB  HIS A 159      -8.748   1.312   9.023  0.00  0.00           C
ATOM   1086  CG  HIS A 159      -9.826   1.355   8.024  0.00  0.00           C
ATOM   1087  ND1 HIS A 159      -9.678   1.175   6.708  0.00  0.00           N
ATOM   1088  CD2 HIS A 159     -11.181   1.588   8.239  0.00  0.00           C
ATOM   1089  CE1 HIS A 159     -10.875   1.307   6.120  0.00  0.00           C
ATOM   1090  NE2 HIS A 159     -11.806   1.561   7.052  0.00  0.00           N
ATOM   1091  N   THR A 160      -6.437   2.350  10.819  0.00  0.00           N
ATOM   1092  CA  THR A 160      -5.565   2.275  11.956  0.00  0.00           C
ATOM   1093  C   THR A 160      -5.681   3.495  12.790  0.00  0.00           C
ATOM   1094  O   THR A 160      -5.997   3.354  13.996  0.00  0.00           O
ATOM   1095  CB  THR A 160      -4.089   2.033  11.562  0.00  0.00           C
ATOM   1096  OG1 THR A 160      -3.607   3.120  10.786  0.00  0.00           O
ATOM   1097  CG2 THR A 160      -3.858   0.727  10.784  0.00  0.00           C
ATOM   1098  N   LEU A 161      -5.568   4.739  12.256  0.00  0.00           N
ATOM   1099  CA  LEU A 161      -5.773   5.932  13.028  0.00  0.00           C
ATOM   1100  C   LEU A 161      -7.147   6.079  13.583  0.00  0.00           C
ATOM   1101  O   LEU A 161      -7.371   7.058  14.332  0.00  0.00           O
ATOM   1102  CB  LEU A 161      -5.420   7.186  12.182  0.00  0.00           C
ATOM   1103  CG  LEU A 161      -3.941   7.326  11.731  0.00  0.00           C
ATOM   1104  CD1 LEU A 161      -3.790   8.614  10.894  0.00  0.00           C
ATOM   1105  CD2 LEU A 161      -2.952   7.380  12.914  0.00  0.00           C
ATOM   1106  N   LEU A 162      -8.138   5.183  13.363  0.00  0.00           N
ATOM   1107  CA  LEU A 162      -9.436   5.254  13.954  0.00  0.00           C
ATOM   1108  C   LEU A 162      -9.630   4.163  14.939  0.00  0.00           C
ATOM   1109  O   LEU A 162     -10.697   4.195  15.598  0.00  0.00           O
ATOM   1110  CB  LEU A 162     -10.509   5.189  12.830  0.00  0.00           C
ATOM   1111  CG  LEU A 162     -10.699   6.509  12.037  0.00  0.00           C
ATOM   1112  CD1 LEU A 162     -11.453   6.230  10.718  0.00  0.00           C
ATOM   1113  CD2 LEU A 162     -11.476   7.564  12.857  0.00  0.00           C
ATOM   1114  N   MET A 163      -8.704   3.186  15.146  0.00  0.00           N1+
ATOM   1115  CA  MET A 163      -8.791   2.083  16.074  0.00  0.00           C
ATOM   1116  C   MET A 163      -9.857   1.080  15.788  0.00  0.00           C
ATOM   1117  O   MET A 163      -9.589  -0.145  15.822  0.00  0.00           O
ATOM   1118  CB  MET A 163      -8.850   2.619  17.529  0.00  0.00           C
ATOM   1119  CG  MET A 163      -8.720   1.513  18.599  0.00  0.00           C
ATOM   1120  SD  MET A 163      -8.513   2.194  20.261  0.00  0.00           S
ATOM   1121  CE  MET A 163     -10.190   2.816  20.506  0.00  0.00           C
ATOM   1122  N   ASN A 164     -11.103   1.513  15.510  0.00  0.00           N
ATOM   1123  CA  ASN A 164     -12.287   0.773  15.168  0.00  0.00           C
ATOM   1124  C   ASN A 164     -12.835  -0.037  16.282  0.00  0.00           C
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ATOM   1125  O   ASN A 164     -14.048   0.056  16.578  0.00  0.00           O
ATOM   1126  CB  ASN A 164     -12.089  -0.085  13.888  0.00  0.00           C
ATOM   1127  CG  ASN A 164     -11.926   0.725  12.674  0.00  0.00           C
ATOM   1128  OD1 ASN A 164     -12.700   0.594  11.705  0.00  0.00           O
ATOM   1129  ND2 ASN A 164     -10.951   1.627  12.555  0.00  0.00           N
ATOM   1130  N   SER A 165     -12.034  -0.886  16.950  0.00  0.00           N
ATOM   1131  CA  SER A 165     -12.478  -1.802  17.961  0.00  0.00           C
ATOM   1132  C   SER A 165     -12.564  -1.244  19.328  0.00  0.00           C
ATOM   1133  O   SER A 165     -11.913  -0.231  19.664  0.00  0.00           O
ATOM   1134  CB  SER A 165     -11.571  -3.049  17.948  0.00  0.00           C
ATOM   1135  OG  SER A 165     -11.706  -3.832  19.134  0.00  0.00           O
ATOM   1136  N   LEU A 166     -13.335  -1.906  20.215  0.00  0.00           N
ATOM   1137  CA  LEU A 166     -13.513  -1.600  21.600  0.00  0.00           C
ATOM   1138  C   LEU A 166     -13.040  -2.725  22.456  0.00  0.00           C
ATOM   1139  O   LEU A 166     -13.052  -2.608  23.706  0.00  0.00           O
ATOM   1140  CB  LEU A 166     -15.032  -1.304  21.745  0.00  0.00           C
ATOM   1141  CG  LEU A 166     -15.503  -0.654  23.074  0.00  0.00           C
ATOM   1142  CD1 LEU A 166     -14.906   0.755  23.282  0.00  0.00           C
ATOM   1143  CD2 LEU A 166     -17.046  -0.563  23.085  0.00  0.00           C
ATOM   1144  N   SER A 167     -12.558  -3.867  21.909  0.00  0.00           N
ATOM   1145  CA  SER A 167     -12.193  -5.044  22.646  0.00  0.00           C
ATOM   1146  C   SER A 167     -10.819  -4.951  23.190  0.00  0.00           C
ATOM   1147  O   SER A 167      -9.890  -5.678  22.766  0.00  0.00           O
ATOM   1148  CB  SER A 167     -12.400  -6.296  21.761  0.00  0.00           C
ATOM   1149  OG  SER A 167     -13.779  -6.452  21.438  0.00  0.00           O
ATOM   1150  N   PHE A 168     -10.598  -4.045  24.161  0.00  0.00           N
ATOM   1151  CA  PHE A 168      -9.361  -3.853  24.861  0.00  0.00           C
ATOM   1152  C   PHE A 168      -9.523  -3.983  26.330  0.00  0.00           C
ATOM   1153  O   PHE A 168     -10.336  -3.251  26.938  0.00  0.00           O
ATOM   1154  CB  PHE A 168      -8.791  -2.464  24.476  0.00  0.00           C
ATOM   1155  CG  PHE A 168      -8.381  -2.410  23.055  0.00  0.00           C
ATOM   1156  CD1 PHE A 168      -7.227  -3.088  22.623  0.00  0.00           C
ATOM   1157  CD2 PHE A 168      -9.142  -1.694  22.116  0.00  0.00           C
ATOM   1158  CE1 PHE A 168      -6.845  -3.057  21.276  0.00  0.00           C
ATOM   1159  CE2 PHE A 168      -8.762  -1.666  20.768  0.00  0.00           C
ATOM   1160  CZ  PHE A 168      -7.614  -2.346  20.347  0.00  0.00           C
ATOM   1161  N   CYS A 169      -8.778  -4.886  27.005  0.00  0.00           N
ATOM   1162  CA  CYS A 169      -8.772  -5.089  28.427  0.00  0.00           C
ATOM   1163  C   CYS A 169      -7.390  -5.045  28.960  0.00  0.00           C
ATOM   1164  O   CYS A 169      -6.430  -5.320  28.203  0.00  0.00           O
ATOM   1165  CB  CYS A 169      -9.432  -6.458  28.704  0.00  0.00           C
ATOM   1166  SG  CYS A 169      -9.623  -6.796  30.469  0.00  0.00           S
ATOM   1167  N   ALA A 170      -7.155  -4.732  30.252  0.00  0.00           N
ATOM   1168  CA  ALA A 170      -5.868  -4.752  30.878  0.00  0.00           C
ATOM   1169  C   ALA A 170      -5.956  -5.423  32.197  0.00  0.00           C
ATOM   1170  O   ALA A 170      -5.011  -5.328  33.014  0.00  0.00           O
ATOM   1171  CB  ALA A 170      -5.423  -3.280  31.020  0.00  0.00           C
ATOM   1172  N   ASN A 171      -7.088  -6.074  32.540  0.00  0.00           N
ATOM   1173  CA  ASN A 171      -7.467  -6.412  33.874  0.00  0.00           C
ATOM   1174  C   ASN A 171      -8.198  -7.704  33.889  0.00  0.00           C
ATOM   1175  O   ASN A 171      -7.631  -8.665  33.321  0.00  0.00           O
ATOM   1176  CB  ASN A 171      -8.233  -5.177  34.418  0.00  0.00           C
ATOM   1177  CG  ASN A 171      -9.273  -4.658  33.510  0.00  0.00           C
ATOM   1178  OD1 ASN A 171      -9.005  -4.172  32.385  0.00  0.00           O
ATOM   1179  ND2 ASN A 171     -10.545  -4.694  33.887  0.00  0.00           N
ATOM   1180  N   HIS A 172      -9.399  -7.914  34.483  0.00  0.00           N
ATOM   1181  CA  HIS A 172     -10.108  -9.162  34.396  0.00  0.00           C
ATOM   1182  C   HIS A 172     -11.534  -8.981  34.055  0.00  0.00           C
ATOM   1183  O   HIS A 172     -12.089  -9.796  33.289  0.00  0.00           O
ATOM   1184  CB  HIS A 172     -10.004  -9.963  35.717  0.00  0.00           C
ATOM   1185  CG  HIS A 172      -8.723 -10.676  35.856  0.00  0.00           C
ATOM   1186  ND1 HIS A 172      -8.150 -11.487  34.954  0.00  0.00           N
ATOM   1187  CD2 HIS A 172      -7.886 -10.668  36.966  0.00  0.00           C
ATOM   1188  CE1 HIS A 172      -7.017 -11.970  35.480  0.00  0.00           C
ATOM   1189  NE2 HIS A 172      -6.844 -11.477  36.718  0.00  0.00           N
ATOM   1190  N   GLU A 173     -12.251  -8.002  34.626  0.00  0.00           N
ATOM   1191  CA  GLU A 173     -13.672  -7.880  34.640  0.00  0.00           C
ATOM   1192  C   GLU A 173     -14.198  -6.961  33.599  0.00  0.00           C
ATOM   1193  O   GLU A 173     -14.920  -7.448  32.700  0.00  0.00           O
ATOM   1194  CB  GLU A 173     -14.121  -7.473  36.079  0.00  0.00           C
ATOM   1195  CG  GLU A 173     -13.042  -6.866  37.027  0.00  0.00           C
ATOM   1196  CD  GLU A 173     -12.156  -5.872  36.406  0.00  0.00           C
ATOM   1197  OE1 GLU A 173     -12.605  -4.808  35.937  0.00  0.00           O
ATOM   1198  OE2 GLU A 173     -10.950  -6.144  36.202  0.00  0.00           O1-
ATOM   1199  N   ILE A 174     -13.978  -5.628  33.639  0.00  0.00           N
ATOM   1200  CA  ILE A 174     -14.578  -4.667  32.749  0.00  0.00           C
ATOM   1201  C   ILE A 174     -13.573  -4.040  31.842  0.00  0.00           C
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ATOM   1202  O   ILE A 174     -12.541  -3.570  32.374  0.00  0.00           O
ATOM   1203  CB  ILE A 174     -15.318  -3.596  33.615  0.00  0.00           C
ATOM   1204  CG1 ILE A 174     -16.432  -4.195  34.524  0.00  0.00           C
ATOM   1205  CG2 ILE A 174     -15.892  -2.417  32.786  0.00  0.00           C
ATOM   1206  CD1 ILE A 174     -17.580  -4.925  33.793  0.00  0.00           C
ATOM   1207  N   PRO A 175     -13.719  -3.855  30.496  0.00  0.00           N
ATOM   1208  CA  PRO A 175     -14.862  -4.214  29.705  0.00  0.00           C
ATOM   1209  C   PRO A 175     -14.723  -5.533  29.101  0.00  0.00           C
ATOM   1210  O   PRO A 175     -14.569  -6.494  29.837  0.00  0.00           O
ATOM   1211  CB  PRO A 175     -14.904  -3.033  28.713  0.00  0.00           C
ATOM   1212  CG  PRO A 175     -13.422  -2.753  28.431  0.00  0.00           C
ATOM   1213  CD  PRO A 175     -12.717  -3.182  29.727  0.00  0.00           C
ATOM   1214  N   HIS A 176     -14.762  -5.715  27.792  0.00  0.00           N
ATOM   1215  CA  HIS A 176     -14.617  -6.966  27.104  0.00  0.00           C
ATOM   1216  C   HIS A 176     -15.639  -7.960  27.544  0.00  0.00           C
ATOM   1217  O   HIS A 176     -16.845  -7.619  27.524  0.00  0.00           O
ATOM   1218  CB  HIS A 176     -13.118  -7.377  27.188  0.00  0.00           C
ATOM   1219  CG  HIS A 176     -12.827  -8.744  26.738  0.00  0.00           C
ATOM   1220  ND1 HIS A 176     -12.361  -9.707  27.541  0.00  0.00           N
ATOM   1221  CD2 HIS A 176     -12.999  -9.312  25.482  0.00  0.00           C
ATOM   1222  CE1 HIS A 176     -12.246 -10.835  26.827  0.00  0.00           C
ATOM   1223  NE2 HIS A 176     -12.641 -10.602  25.566  0.00  0.00           N
ATOM   1224  N   PHE A 177     -15.298  -9.209  27.925  0.00  0.00           N
ATOM   1225  CA  PHE A 177     -16.203 -10.203  28.420  0.00  0.00           C
ATOM   1226  C   PHE A 177     -15.703 -10.698  29.719  0.00  0.00           C
ATOM   1227  O   PHE A 177     -16.410 -10.594  30.747  0.00  0.00           O
ATOM   1228  CB  PHE A 177     -16.331 -11.358  27.392  0.00  0.00           C
ATOM   1229  CG  PHE A 177     -16.960 -10.939  26.121  0.00  0.00           C
ATOM   1230  CD1 PHE A 177     -18.307 -10.537  26.086  0.00  0.00           C
ATOM   1231  CD2 PHE A 177     -16.224 -10.948  24.924  0.00  0.00           C
ATOM   1232  CE1 PHE A 177     -18.901 -10.140  24.882  0.00  0.00           C
ATOM   1233  CE2 PHE A 177     -16.815 -10.549  23.719  0.00  0.00           C
ATOM   1234  CZ  PHE A 177     -18.155 -10.144  23.697  0.00  0.00           C
ATOM   1235  N   PHE A 178     -14.473 -11.245  29.767  0.00  0.00           N
ATOM   1236  CA  PHE A 178     -13.771 -11.657  30.939  0.00  0.00           C
ATOM   1237  C   PHE A 178     -12.379 -11.918  30.512  0.00  0.00           C
ATOM   1238  O   PHE A 178     -12.148 -12.735  29.590  0.00  0.00           O
ATOM   1239  CB  PHE A 178     -14.423 -12.870  31.659  0.00  0.00           C
ATOM   1240  CG  PHE A 178     -14.542 -12.616  33.112  0.00  0.00           C
ATOM   1241  CD1 PHE A 178     -13.406 -12.638  33.941  0.00  0.00           C
ATOM   1242  CD2 PHE A 178     -15.792 -12.316  33.680  0.00  0.00           C
ATOM   1243  CE1 PHE A 178     -13.518 -12.352  35.307  0.00  0.00           C
ATOM   1244  CE2 PHE A 178     -15.904 -12.027  35.046  0.00  0.00           C
ATOM   1245  CZ  PHE A 178     -14.766 -12.042  35.860  0.00  0.00           C
ATOM   1246  N   CYS A 179     -11.374 -11.201  31.043  0.00  0.00           N
ATOM   1247  CA  CYS A 179     -10.066 -11.098  30.477  0.00  0.00           C
ATOM   1248  C   CYS A 179      -9.091 -12.039  31.070  0.00  0.00           C
ATOM   1249  O   CYS A 179      -8.906 -12.094  32.309  0.00  0.00           O
ATOM   1250  CB  CYS A 179      -9.556  -9.644  30.579  0.00  0.00           C
ATOM   1251  SG  CYS A 179     -10.835  -8.447  30.140  0.00  0.00           S
ATOM   1252  N   ASP A 180      -8.375 -12.783  30.205  0.00  0.00           N
ATOM   1253  CA  ASP A 180      -7.265 -13.627  30.504  0.00  0.00           C
ATOM   1254  C   ASP A 180      -5.991 -12.890  30.265  0.00  0.00           C
ATOM   1255  O   ASP A 180      -5.991 -11.659  30.036  0.00  0.00           O
ATOM   1256  CB  ASP A 180      -7.460 -14.886  29.610  0.00  0.00           C
ATOM   1257  CG  ASP A 180      -6.264 -15.725  29.488  0.00  0.00           C
ATOM   1258  OD1 ASP A 180      -5.711 -16.229  30.487  0.00  0.00           O
ATOM   1259  OD2 ASP A 180      -5.660 -15.781  28.397  0.00  0.00           O1-
ATOM   1260  N   ILE A 181      -4.828 -13.568  30.265  0.00  0.00           N
ATOM   1261  CA  ILE A 181      -3.537 -13.025  29.982  0.00  0.00           C
ATOM   1262  C   ILE A 181      -3.246 -12.981  28.526  0.00  0.00           C
ATOM   1263  O   ILE A 181      -2.500 -12.067  28.103  0.00  0.00           O
ATOM   1264  CB  ILE A 181      -2.450 -13.783  30.803  0.00  0.00           C
ATOM   1265  CG1 ILE A 181      -1.113 -12.989  30.829  0.00  0.00           C
ATOM   1266  CG2 ILE A 181      -2.233 -15.237  30.310  0.00  0.00           C
ATOM   1267  CD1 ILE A 181      -0.125 -13.470  31.909  0.00  0.00           C
ATOM   1268  N   ASN A 182      -3.756 -13.857  27.627  0.00  0.00           N
ATOM   1269  CA  ASN A 182      -3.410 -13.827  26.230  0.00  0.00           C
ATOM   1270  C   ASN A 182      -3.686 -12.507  25.590  0.00  0.00           C
ATOM   1271  O   ASN A 182      -2.742 -12.006  24.927  0.00  0.00           O
ATOM   1272  CB  ASN A 182      -4.045 -15.002  25.443  0.00  0.00           C
ATOM   1273  CG  ASN A 182      -3.411 -16.289  25.759  0.00  0.00           C
ATOM   1274  OD1 ASN A 182      -2.562 -16.792  24.995  0.00  0.00           O
ATOM   1275  ND2 ASN A 182      -3.727 -16.960  26.865  0.00  0.00           N
ATOM   1276  N   PRO A 183      -4.840 -11.789  25.732  0.00  0.00           N
ATOM   1277  CA  PRO A 183      -4.995 -10.455  25.217  0.00  0.00           C
ATOM   1278  C   PRO A 183      -4.136  -9.429  25.794  0.00  0.00           C
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ATOM   1279  O   PRO A 183      -4.138  -8.323  25.272  0.00  0.00           O
ATOM   1280  CB  PRO A 183      -6.483 -10.108  25.455  0.00  0.00           C
ATOM   1281  CG  PRO A 183      -7.147 -11.445  25.786  0.00  0.00           C
ATOM   1282  CD  PRO A 183      -6.008 -12.256  26.407  0.00  0.00           C
ATOM   1283  N   LEU A 184      -3.347  -9.654  26.828  0.00  0.00           N
ATOM   1284  CA  LEU A 184      -2.454  -8.701  27.418  0.00  0.00           C
ATOM   1285  C   LEU A 184      -1.101  -9.017  26.916  0.00  0.00           C
ATOM   1286  O   LEU A 184      -0.373  -8.107  26.459  0.00  0.00           O
ATOM   1287  CB  LEU A 184      -2.503  -8.807  28.966  0.00  0.00           C
ATOM   1288  CG  LEU A 184      -3.646  -8.024  29.663  0.00  0.00           C
ATOM   1289  CD1 LEU A 184      -5.056  -8.405  29.163  0.00  0.00           C
ATOM   1290  CD2 LEU A 184      -3.559  -8.261  31.188  0.00  0.00           C
ATOM   1291  N   LEU A 185      -0.693 -10.304  26.897  0.00  0.00           N
ATOM   1292  CA  LEU A 185       0.514 -10.778  26.300  0.00  0.00           C
ATOM   1293  C   LEU A 185       0.594 -10.402  24.867  0.00  0.00           C
ATOM   1294  O   LEU A 185       1.583  -9.742  24.471  0.00  0.00           O
ATOM   1295  CB  LEU A 185       0.567 -12.311  26.523  0.00  0.00           C
ATOM   1296  CG  LEU A 185       1.862 -13.016  26.039  0.00  0.00           C
ATOM   1297  CD1 LEU A 185       3.115 -12.540  26.809  0.00  0.00           C
ATOM   1298  CD2 LEU A 185       1.708 -14.545  26.196  0.00  0.00           C
ATOM   1299  N   SER A 186      -0.409 -10.683  24.004  0.00  0.00           N
ATOM   1300  CA  SER A 186      -0.411 -10.313  22.613  0.00  0.00           C
ATOM   1301  C   SER A 186      -0.111  -8.875  22.410  0.00  0.00           C
ATOM   1302  O   SER A 186       0.723  -8.497  21.546  0.00  0.00           O
ATOM   1303  CB  SER A 186      -1.785 -10.634  21.982  0.00  0.00           C
ATOM   1304  OG  SER A 186      -2.161 -11.988  22.215  0.00  0.00           O
ATOM   1305  N   LEU A 187      -0.716  -7.993  23.233  0.00  0.00           N
ATOM   1306  CA  LEU A 187      -0.552  -6.580  23.213  0.00  0.00           C
ATOM   1307  C   LEU A 187       0.814  -6.118  23.568  0.00  0.00           C
ATOM   1308  O   LEU A 187       1.050  -4.893  23.430  0.00  0.00           O
ATOM   1309  CB  LEU A 187      -1.639  -5.983  24.148  0.00  0.00           C
ATOM   1310  CG  LEU A 187      -2.128  -4.558  23.770  0.00  0.00           C
ATOM   1311  CD1 LEU A 187      -3.024  -4.571  22.510  0.00  0.00           C
ATOM   1312  CD2 LEU A 187      -2.911  -3.944  24.951  0.00  0.00           C
ATOM   1313  N   SER A 188       1.825  -6.956  23.926  0.00  0.00           N
ATOM   1314  CA  SER A 188       3.209  -6.563  23.998  0.00  0.00           C
ATOM   1315  C   SER A 188       3.791  -6.433  22.628  0.00  0.00           C
ATOM   1316  O   SER A 188       4.896  -6.919  22.285  0.00  0.00           O
ATOM   1317  CB  SER A 188       3.970  -7.560  24.904  0.00  0.00           C
ATOM   1318  OG  SER A 188       5.344  -7.196  24.969  0.00  0.00           O
ATOM   1319  N   CYS A 189       3.052  -5.730  21.750  0.00  0.00           N
ATOM   1320  CA  CYS A 189       3.257  -5.499  20.358  0.00  0.00           C
ATOM   1321  C   CYS A 189       3.608  -6.719  19.587  0.00  0.00           C
ATOM   1322  O   CYS A 189       4.630  -6.706  18.860  0.00  0.00           O
ATOM   1323  CB  CYS A 189       4.263  -4.342  20.150  0.00  0.00           C
ATOM   1324  SG  CYS A 189       3.650  -2.748  20.739  0.00  0.00           S
ATOM   1325  N   THR A 190       2.826  -7.825  19.599  0.00  0.00           N
ATOM   1326  CA  THR A 190       3.022  -8.904  18.670  0.00  0.00           C
ATOM   1327  C   THR A 190       2.587  -8.458  17.324  0.00  0.00           C
ATOM   1328  O   THR A 190       1.366  -8.382  17.068  0.00  0.00           O
ATOM   1329  CB  THR A 190       2.268 -10.181  19.127  0.00  0.00           C
ATOM   1330  OG1 THR A 190       2.479 -10.408  20.515  0.00  0.00           O
ATOM   1331  CG2 THR A 190       2.726 -11.441  18.371  0.00  0.00           C
ATOM   1332  N   ASP A 191       3.496  -8.043  16.418  0.00  0.00           N
ATOM   1333  CA  ASP A 191       3.287  -7.363  15.176  0.00  0.00           C
ATOM   1334  C   ASP A 191       1.893  -7.218  14.641  0.00  0.00           C
ATOM   1335  O   ASP A 191       1.403  -6.066  14.729  0.00  0.00           O
ATOM   1336  CB  ASP A 191       4.339  -7.938  14.192  0.00  0.00           C
ATOM   1337  CG  ASP A 191       5.705  -7.548  14.552  0.00  0.00           C
ATOM   1338  OD1 ASP A 191       6.230  -7.856  15.646  0.00  0.00           O
ATOM   1339  OD2 ASP A 191       6.374  -6.854  13.764  0.00  0.00           O1-
ATOM   1340  N   PRO A 192       1.118  -8.185  14.069  0.00  0.00           N
ATOM   1341  CA  PRO A 192      -0.232  -7.953  13.626  0.00  0.00           C
ATOM   1342  C   PRO A 192      -1.283  -8.324  14.569  0.00  0.00           C
ATOM   1343  O   PRO A 192      -2.448  -8.201  14.214  0.00  0.00           O
ATOM   1344  CB  PRO A 192      -0.295  -8.885  12.399  0.00  0.00           C
ATOM   1345  CG  PRO A 192       0.488 -10.115  12.869  0.00  0.00           C
ATOM   1346  CD  PRO A 192       1.561  -9.512  13.789  0.00  0.00           C
ATOM   1347  N   PHE A 193      -1.026  -8.833  15.757  0.00  0.00           N
ATOM   1348  CA  PHE A 193      -1.963  -9.600  16.519  0.00  0.00           C
ATOM   1349  C   PHE A 193      -2.538  -8.788  17.613  0.00  0.00           C
ATOM   1350  O   PHE A 193      -1.834  -8.412  18.579  0.00  0.00           O
ATOM   1351  CB  PHE A 193      -1.259 -10.896  17.005  0.00  0.00           C
ATOM   1352  CG  PHE A 193      -2.196 -12.008  17.284  0.00  0.00           C
ATOM   1353  CD1 PHE A 193      -2.201 -13.150  16.464  0.00  0.00           C
ATOM   1354  CD2 PHE A 193      -3.087 -11.952  18.371  0.00  0.00           C
ATOM   1355  CE1 PHE A 193      -3.085 -14.206  16.718  0.00  0.00           C
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ATOM   1356  CE2 PHE A 193      -3.977 -13.004  18.620  0.00  0.00           C
ATOM   1357  CZ  PHE A 193      -3.979 -14.131  17.791  0.00  0.00           C
ATOM   1358  N   THR A 194      -3.839  -8.444  17.536  0.00  0.00           N
ATOM   1359  CA  THR A 194      -4.559  -7.703  18.528  0.00  0.00           C
ATOM   1360  C   THR A 194      -5.764  -8.479  18.894  0.00  0.00           C
ATOM   1361  O   THR A 194      -5.625  -9.485  19.625  0.00  0.00           O
ATOM   1362  CB  THR A 194      -4.878  -6.264  18.030  0.00  0.00           C
ATOM   1363  OG1 THR A 194      -5.660  -6.268  16.838  0.00  0.00           O
ATOM   1364  CG2 THR A 194      -3.608  -5.439  17.750  0.00  0.00           C
ATOM   1365  N   ASN A 195      -6.977  -8.149  18.406  0.00  0.00           N1+
ATOM   1366  CA  ASN A 195      -8.175  -8.907  18.596  0.00  0.00           C
ATOM   1367  C   ASN A 195      -8.636  -9.500  17.320  0.00  0.00           C
ATOM   1368  O   ASN A 195      -8.342  -8.990  16.211  0.00  0.00           O
ATOM   1369  CB  ASN A 195      -9.268  -8.075  19.312  0.00  0.00           C
ATOM   1370  CG  ASN A 195      -9.700  -6.868  18.602  0.00  0.00           C
ATOM   1371  OD1 ASN A 195     -10.273  -6.924  17.492  0.00  0.00           O
ATOM   1372  ND2 ASN A 195      -9.536  -5.671  19.170  0.00  0.00           N
ATOM   1373  N   GLU A 196      -9.389 -10.612  17.377  0.00  0.00           N
ATOM   1374  CA  GLU A 196      -9.873 -11.393  16.292  0.00  0.00           C
ATOM   1375  C   GLU A 196     -10.701 -10.616  15.339  0.00  0.00           C
ATOM   1376  O   GLU A 196     -10.518 -10.748  14.102  0.00  0.00           O
ATOM   1377  CB  GLU A 196     -10.592 -12.620  16.915  0.00  0.00           C
ATOM   1378  CG  GLU A 196     -11.806 -12.337  17.848  0.00  0.00           C
ATOM   1379  CD  GLU A 196     -11.539 -11.643  19.122  0.00  0.00           C
ATOM   1380  OE1 GLU A 196     -10.420 -11.664  19.682  0.00  0.00           O
ATOM   1381  OE2 GLU A 196     -12.450 -10.965  19.642  0.00  0.00           O1-
ATOM   1382  N   LEU A 197     -11.590  -9.714  15.810  0.00  0.00           N
ATOM   1383  CA  LEU A 197     -12.368  -8.831  14.997  0.00  0.00           C
ATOM   1384  C   LEU A 197     -11.499  -7.992  14.136  0.00  0.00           C
ATOM   1385  O   LEU A 197     -11.626  -8.076  12.889  0.00  0.00           O
ATOM   1386  CB  LEU A 197     -13.287  -7.948  15.884  0.00  0.00           C
ATOM   1387  CG  LEU A 197     -14.239  -8.713  16.845  0.00  0.00           C
ATOM   1388  CD1 LEU A 197     -15.025  -7.705  17.712  0.00  0.00           C
ATOM   1389  CD2 LEU A 197     -15.229  -9.633  16.096  0.00  0.00           C
ATOM   1390  N   VAL A 198     -10.548  -7.196  14.683  0.00  0.00           N
ATOM   1391  CA  VAL A 198      -9.595  -6.439  13.924  0.00  0.00           C
ATOM   1392  C   VAL A 198      -8.835  -7.314  13.009  0.00  0.00           C
ATOM   1393  O   VAL A 198      -8.854  -7.012  11.794  0.00  0.00           O
ATOM   1394  CB  VAL A 198      -8.675  -5.617  14.877  0.00  0.00           C
ATOM   1395  CG1 VAL A 198      -7.363  -5.115  14.226  0.00  0.00           C
ATOM   1396  CG2 VAL A 198      -9.442  -4.392  15.421  0.00  0.00           C
ATOM   1397  N   ILE A 199      -8.186  -8.419  13.447  0.00  0.00           N
ATOM   1398  CA  ILE A 199      -7.436  -9.309  12.602  0.00  0.00           C
ATOM   1399  C   ILE A 199      -8.213  -9.662  11.382  0.00  0.00           C
ATOM   1400  O   ILE A 199      -7.741  -9.361  10.254  0.00  0.00           O
ATOM   1401  CB  ILE A 199      -6.969 -10.551  13.431  0.00  0.00           C
ATOM   1402  CG1 ILE A 199      -5.898 -10.155  14.491  0.00  0.00           C
ATOM   1403  CG2 ILE A 199      -6.411 -11.692  12.544  0.00  0.00           C
ATOM   1404  CD1 ILE A 199      -5.626 -11.252  15.543  0.00  0.00           C
ATOM   1405  N   PHE A 200      -9.436 -10.237  12.478  0.00  0.00           N
ATOM   1406  CA  PHE A 200     -10.231 -10.574  10.334  0.00  0.00           C
ATOM   1407  C   PHE A 200     -10.590  -9.396   9.504  0.00  0.00           C
ATOM   1408  O   PHE A 200     -10.319  -9.420   8.277  0.00  0.00           O
ATOM   1409  CB  PHE A 200     -11.497 -11.351  10.778  0.00  0.00           C
ATOM   1410  CG  PHE A 200     -12.348 -11.758   9.634  0.00  0.00           C
ATOM   1411  CD1 PHE A 200     -11.861 -12.647   8.658  0.00  0.00           C
ATOM   1412  CD2 PHE A 200     -13.649 -11.245   9.496  0.00  0.00           C
ATOM   1413  CE1 PHE A 200     -12.647 -12.992   7.552  0.00  0.00           C
ATOM   1414  CE2 PHE A 200     -14.439 -11.597   8.394  0.00  0.00           C
ATOM   1415  CZ  PHE A 200     -13.937 -12.466   7.418  0.00  0.00           C
ATOM   1416  N   ILE A 201     -11.193  -8.315  10.053  0.00  0.00           N
ATOM   1417  CA  ILE A 201     -11.613  -7.166   9.301  0.00  0.00           C
ATOM   1418  C   ILE A 201     -10.483  -6.589   8.535  0.00  0.00           C
ATOM   1419  O   ILE A 201     -10.617  -6.386   7.303  0.00  0.00           O
ATOM   1420  CB  ILE A 201     -12.294  -6.138  10.261  0.00  0.00           C
ATOM   1421  CG1 ILE A 201     -13.674  -6.685  10.732  0.00  0.00           C
ATOM   1422  CG2 ILE A 201     -12.466  -4.740   9.610  0.00  0.00           C
ATOM   1423  CD1 ILE A 201     -14.318  -5.879  11.878  0.00  0.00           C
ATOM   1424  N   THR A 202      -9.307  -6.321   9.141  0.00  0.00           N
ATOM   1425  CA  THR A 202      -8.177  -5.786   8.451  0.00  0.00           C
ATOM   1426  C   THR A 202      -7.656  -6.756   7.468  0.00  0.00           C
ATOM   1427  O   THR A 202      -7.513  -6.339   6.301  0.00  0.00           O
ATOM   1428  CB  THR A 202      -7.061  -5.293   9.403  0.00  0.00           C
ATOM   1429  OG1 THR A 202      -6.555  -6.365  10.187  0.00  0.00           O
ATOM   1430  CG2 THR A 202      -7.555  -4.173  10.340  0.00  0.00           C
ATOM   1431  N   GLY A 203      -7.418  -8.068   7.717  0.00  0.00           N
ATOM   1432  CA  GLY A 203      -7.033  -8.982   6.672  0.00  0.00           C
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ATOM   1433  C   GLY A 203      -7.918  -8.940   5.479  0.00  0.00           C
ATOM   1434  O   GLY A 203      -7.447  -8.824   4.317  0.00  0.00           O
ATOM   1435  N   GLY A 204      -9.256  -8.960   5.662  0.00  0.00           N
ATOM   1436  CA  GLY A 204     -10.210  -8.792   4.609  0.00  0.00           C
ATOM   1437  C   GLY A 204     -10.087  -7.530   3.844  0.00  0.00           C
ATOM   1438  O   GLY A 204      -9.945  -7.585   2.595  0.00  0.00           O
ATOM   1439  N   LEU A 205     -10.170  -6.347   4.497  0.00  0.00           N
ATOM   1440  CA  LEU A 205     -10.150  -5.058   3.864  0.00  0.00           C
ATOM   1441  C   LEU A 205      -8.826  -4.558   3.416  0.00  0.00           C
ATOM   1442  O   LEU A 205      -8.816  -3.638   2.558  0.00  0.00           O
ATOM   1443  CB  LEU A 205     -10.789  -4.008   4.811  0.00  0.00           C
ATOM   1444  CG  LEU A 205     -12.308  -4.181   5.079  0.00  0.00           C
ATOM   1445  CD1 LEU A 205     -12.777  -3.087   6.064  0.00  0.00           C
ATOM   1446  CD2 LEU A 205     -13.154  -4.101   3.786  0.00  0.00           C
ATOM   1447  N   THR A 206      -7.659  -5.016   3.924  0.00  0.00           N
ATOM   1448  CA  THR A 206      -6.364  -4.615   3.466  0.00  0.00           C
ATOM   1449  C   THR A 206      -5.674  -5.640   2.647  0.00  0.00           C
ATOM   1450  O   THR A 206      -4.679  -5.272   1.981  0.00  0.00           O
ATOM   1451  CB  THR A 206      -5.427  -4.123   4.604  0.00  0.00           C
ATOM   1452  OG1 THR A 206      -5.049  -5.194   5.461  0.00  0.00           O
ATOM   1453  CG2 THR A 206      -6.048  -3.007   5.462  0.00  0.00           C
ATOM   1454  N   GLY A 207      -6.049  -6.935   2.552  0.00  0.00           N
ATOM   1455  CA  GLY A 207      -5.477  -7.830   1.592  0.00  0.00           C
ATOM   1456  C   GLY A 207      -6.490  -8.468   0.740  0.00  0.00           C
ATOM   1457  O   GLY A 207      -6.462  -8.322  -0.507  0.00  0.00           O
ATOM   1458  N   LEU A 208      -7.415  -9.260   1.318  0.00  0.00           N
ATOM   1459  CA  LEU A 208      -8.217 -10.180   0.567  0.00  0.00           C
ATOM   1460  C   LEU A 208      -9.042  -9.555  -0.499  0.00  0.00           C
ATOM   1461  O   LEU A 208      -8.958  -9.993  -1.674  0.00  0.00           O
ATOM   1462  CB  LEU A 208      -9.070 -11.030   1.539  0.00  0.00           C
ATOM   1463  CG  LEU A 208      -9.505 -12.400   0.950  0.00  0.00           C
ATOM   1464  CD1 LEU A 208      -8.327 -13.399   0.875  0.00  0.00           C
ATOM   1465  CD2 LEU A 208     -10.640 -13.008   1.800  0.00  0.00           C
ATOM   1466  N   ILE A 209      -9.866  -8.519  -0.224  0.00  0.00           N
ATOM   1467  CA  ILE A 209     -10.722  -7.917  -1.211  0.00  0.00           C
ATOM   1468  C   ILE A 209      -9.994  -7.444  -2.424  0.00  0.00           C
ATOM   1469  O   ILE A 209     -10.349  -7.829  -3.568  0.00  0.00           O
ATOM   1470  CB  ILE A 209     -11.610  -6.836  -0.523  0.00  0.00           C
ATOM   1471  CG1 ILE A 209     -12.848  -6.490  -1.399  0.00  0.00           C
ATOM   1472  CG2 ILE A 209     -10.836  -5.556  -0.113  0.00  0.00           C
ATOM   1473  CD1 ILE A 209     -14.003  -5.862  -0.593  0.00  0.00           C
ATOM   1474  N   CYS A 210      -8.912  -6.646  -2.292  0.00  0.00           N
ATOM   1475  CA  CYS A 210      -8.109  -6.173  -3.377  0.00  0.00           C
ATOM   1476  C   CYS A 210      -7.416  -7.247  -4.077  0.00  0.00           C
ATOM   1477  O   CYS A 210      -7.455  -7.247  -5.304  0.00  0.00           O
ATOM   1478  CB  CYS A 210      -7.177  -5.039  -2.891  0.00  0.00           C
ATOM   1479  SG  CYS A 210      -6.067  -5.510  -1.550  0.00  0.00           S
ATOM   1480  N   VAL A 211      -6.831  -8.244  -3.431  0.00  0.00           N
ATOM   1481  CA  VAL A 211      -6.293  -9.422  -4.062  0.00  0.00           C
ATOM   1482  C   VAL A 211      -7.282 -10.066  -4.967  0.00  0.00           C
ATOM   1483  O   VAL A 211      -6.981 -10.231  -6.178  0.00  0.00           O
ATOM   1484  CB  VAL A 211      -5.762 -10.386  -2.953  0.00  0.00           C
ATOM   1485  CG1 VAL A 211      -5.558 -11.847  -3.418  0.00  0.00           C
ATOM   1486  CG2 VAL A 211      -4.424  -9.879  -2.367  0.00  0.00           C
ATOM   1487  N   LEU A 212      -8.503 -10.430  -4.511  0.00  0.00           N
ATOM   1488  CA  LEU A 212      -9.515 -11.010  -5.350  0.00  0.00           C
ATOM   1489  C   LEU A 212      -9.830 -10.155  -6.524  0.00  0.00           C
ATOM   1490  O   LEU A 212      -9.759 -10.643  -7.682  0.00  0.00           O
ATOM   1491  CB  LEU A 212     -10.803 -11.305  -4.535  0.00  0.00           C
ATOM   1492  CG  LEU A 212     -10.648 -12.343  -3.390  0.00  0.00           C
ATOM   1493  CD1 LEU A 212     -11.968 -12.435  -2.592  0.00  0.00           C
ATOM   1494  CD2 LEU A 212     -10.251 -13.747  -3.895  0.00  0.00           C
ATOM   1495  N   CYS A 213     -10.138  -8.848  -6.352  0.00  0.00           N
ATOM   1496  CA  CYS A 213     -10.397  -7.946  -7.439  0.00  0.00           C
ATOM   1497  C   CYS A 213      -9.308  -7.936  -8.450  0.00  0.00           C
ATOM   1498  O   CYS A 213      -9.582  -8.136  -9.663  0.00  0.00           O
ATOM   1499  CB  CYS A 213     -10.635  -6.516  -6.903  0.00  0.00           C
ATOM   1500  SG  CYS A 213     -12.040  -6.447  -5.773  0.00  0.00           S
ATOM   1501  N   LEU A 214      -8.025  -7.759  -8.052  0.00  0.00           N
ATOM   1502  CA  LEU A 214      -6.903  -7.794  -8.939  0.00  0.00           C
ATOM   1503  C   LEU A 214      -6.862  -9.059  -9.710  0.00  0.00           C
ATOM   1504  O   LEU A 214      -6.896  -8.981 -10.962  0.00  0.00           O
ATOM   1505  CB  LEU A 214      -5.604  -7.532  -8.129  0.00  0.00           C
ATOM   1506  CG  LEU A 214      -4.289  -7.302  -8.930  0.00  0.00           C
ATOM   1507  CD1 LEU A 214      -3.680  -8.598  -9.511  0.00  0.00           C
ATOM   1508  CD2 LEU A 214      -4.436  -6.235 -10.037  0.00  0.00           C
ATOM   1509  N   ILE A 215      -6.854 -10.261  -9.086  0.00  0.00           N
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ATOM   1510  CA  ILE A 215      -6.815 -11.535  -9.760  0.00  0.00           C
ATOM   1511  C   ILE A 215      -7.848 -11.638 -10.825  0.00  0.00           C
ATOM   1512  O   ILE A 215      -7.515 -11.967 -11.995  0.00  0.00           O
ATOM   1513  CB  ILE A 215      -6.918 -12.681  -8.701  0.00  0.00           C
ATOM   1514  CG1 ILE A 215      -5.615 -12.752  -7.851  0.00  0.00           C
ATOM   1515  CG2 ILE A 215      -7.210 -14.065  -9.342  0.00  0.00           C
ATOM   1516  CD1 ILE A 215      -5.710 -13.684  -6.626  0.00  0.00           C
ATOM   1517  N   ILE A 216      -9.140 -11.355 -10.546  0.00  0.00           N
ATOM   1518  CA  ILE A 216     -10.192 -11.411 -11.525  0.00  0.00           C
ATOM   1519  C   ILE A 216      -9.913 -10.500 -12.674  0.00  0.00           C
ATOM   1520  O   ILE A 216      -9.924 -10.953 -13.849  0.00  0.00           O
ATOM   1521  CB  ILE A 216     -11.563 -11.141 -10.831  0.00  0.00           C
ATOM   1522  CG1 ILE A 216     -11.842 -12.190  -9.712  0.00  0.00           C
ATOM   1523  CG2 ILE A 216     -12.728 -11.154 -11.856  0.00  0.00           C
ATOM   1524  CD1 ILE A 216     -12.977 -11.789  -8.748  0.00  0.00           C
ATOM   1525  N   SER A 217      -9.599  -9.200 -12.468  0.00  0.00           N
ATOM   1526  CA  SER A 217      -9.274  -8.286 -13.533  0.00  0.00           C
ATOM   1527  C   SER A 217      -8.114  -8.712 -14.364  0.00  0.00           C
ATOM   1528  O   SER A 217      -8.194  -8.705 -15.618  0.00  0.00           O
ATOM   1529  CB  SER A 217      -9.060  -6.876 -12.943  0.00  0.00           C
ATOM   1530  OG  SER A 217      -7.778  -6.707 -12.340  0.00  0.00           O
ATOM   1531  N   TYR A 218      -6.994  -9.166 -13.761  0.00  0.00           N
ATOM   1532  CA  TYR A 218      -5.850  -9.722 -14.419  0.00  0.00           C
ATOM   1533  C   TYR A 218      -6.208 -10.847 -15.319  0.00  0.00           C
ATOM   1534  O   TYR A 218      -5.826 -10.848 -16.518  0.00  0.00           O
ATOM   1535  CB  TYR A 218      -4.852 -10.119 -13.297  0.00  0.00           C
ATOM   1536  CG  TYR A 218      -3.663 -10.865 -13.763  0.00  0.00           C
ATOM   1537  CD1 TYR A 218      -3.730 -12.252 -13.977  0.00  0.00           C
ATOM   1538  CD2 TYR A 218      -2.443 -10.206 -13.983  0.00  0.00           C
ATOM   1539  CE1 TYR A 218      -2.614 -12.957 -14.444  0.00  0.00           C
ATOM   1540  CE2 TYR A 218      -1.331 -10.905 -14.463  0.00  0.00           C
ATOM   1541  CZ  TYR A 218      -1.413 -12.282 -14.694  0.00  0.00           C
ATOM   1542  OH  TYR A 218      -0.337 -12.955 -15.157  0.00  0.00           O
ATOM   1543  N   THR A 219      -6.964 -11.861 -14.848  0.00  0.00           N
ATOM   1544  CA  THR A 219      -7.414 -12.960 -15.653  0.00  0.00           C
ATOM   1545  C   THR A 219      -8.167 -12.503 -16.851  0.00  0.00           C
ATOM   1546  O   THR A 219      -7.858 -12.936 -17.993  0.00  0.00           O
ATOM   1547  CB  THR A 219      -8.246 -13.933 -14.777  0.00  0.00           C
ATOM   1548  OG1 THR A 219      -7.537 -14.258 -13.584  0.00  0.00           O
ATOM   1549  CG2 THR A 219      -8.520 -15.269 -15.492  0.00  0.00           C
ATOM   1550  N   ASN A 220      -9.142 -11.572 -16.725  0.00  0.00           N
ATOM   1551  CA  ASN A 220      -9.811 -10.984 -17.852  0.00  0.00           C
ATOM   1552  C   ASN A 220      -8.866 -10.339 -18.808  0.00  0.00           C
ATOM   1553  O   ASN A 220      -8.908 -10.686 -20.014  0.00  0.00           O
ATOM   1554  CB  ASN A 220     -10.902 -10.002 -17.358  0.00  0.00           C
ATOM   1555  CG  ASN A 220     -11.879  -9.618 -18.391  0.00  0.00           C
ATOM   1556  OD1 ASN A 220     -11.859 -10.081 -19.551  0.00  0.00           O
ATOM   1557  ND2 ASN A 220     -12.852  -8.750 -18.111  0.00  0.00           N
ATOM   1558  N   VAL A 221      -7.933  -9.447 -18.395  0.00  0.00           N
ATOM   1559  CA  VAL A 221      -6.918  -8.879 -19.252  0.00  0.00           C
ATOM   1560  C   VAL A 221      -6.188  -9.918 -20.024  0.00  0.00           C
ATOM   1561  O   VAL A 221      -6.056  -9.768 -21.262  0.00  0.00           O
ATOM   1562  CB  VAL A 221      -5.942  -7.975 -18.435  0.00  0.00           C
ATOM   1563  CG1 VAL A 221      -4.605  -7.674 -19.163  0.00  0.00           C
ATOM   1564  CG2 VAL A 221      -6.606  -6.626 -18.083  0.00  0.00           C
ATOM   1565  N   PHE A 222      -5.685 -11.019 -19.425  0.00  0.00           N
ATOM   1566  CA  PHE A 222      -5.081 -12.096 -20.162  0.00  0.00           C
ATOM   1567  C   PHE A 222      -5.975 -12.658 -21.206  0.00  0.00           C
ATOM   1568  O   PHE A 222      -5.558 -12.745 -22.388  0.00  0.00           O
ATOM   1569  CB  PHE A 222      -4.575 -13.201 -19.199  0.00  0.00           C
ATOM   1570  CG  PHE A 222      -3.126 -13.051 -18.953  0.00  0.00           C
ATOM   1571  CD1 PHE A 222      -2.641 -11.987 -18.173  0.00  0.00           C
ATOM   1572  CD2 PHE A 222      -2.213 -13.952 -19.527  0.00  0.00           C
ATOM   1573  CE1 PHE A 222      -1.264 -11.820 -17.985  0.00  0.00           C
ATOM   1574  CE2 PHE A 222      -0.836 -13.792 -19.327  0.00  0.00           C
ATOM   1575  CZ  PHE A 222      -0.362 -12.729 -18.551  0.00  0.00           C
ATOM   1576  N   SER A 223      -7.240 -13.030 -20.911  0.00  0.00           N
ATOM   1577  CA  SER A 223      -8.172 -13.472 -21.914  0.00  0.00           C
ATOM   1578  C   SER A 223      -8.343 -12.497 -23.025  0.00  0.00           C
ATOM   1579  O   SER A 223      -8.415 -12.890 -24.215  0.00  0.00           O
ATOM   1580  CB  SER A 223      -9.536 -13.818 -21.273  0.00  0.00           C
ATOM   1581  OG  SER A 223     -10.412 -12.693 -21.216  0.00  0.00           O
ATOM   1582  N   THR A 224      -8.473 -11.177 -22.767  0.00  0.00           N
ATOM   1583  CA  THR A 224      -8.512 -10.153 -23.775  0.00  0.00           C
ATOM   1584  C   THR A 224      -7.279 -10.155 -24.594  0.00  0.00           C
ATOM   1585  O   THR A 224      -7.405 -10.303 -25.829  0.00  0.00           O
ATOM   1586  CB  THR A 224      -8.794  -8.768 -23.142  0.00  0.00           C
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ATOM   1587  OG1 THR A 224     -10.017  -8.828 -22.416  0.00  0.00           O
ATOM   1588  CG2 THR A 224      -8.943  -7.637 -24.178  0.00  0.00           C
ATOM   1589  N   ILE A 225      -6.047 -10.078 -24.045  0.00  0.00           N
ATOM   1590  CA  ILE A 225      -4.821 -10.175 -24.794  0.00  0.00           C
ATOM   1591  C   ILE A 225      -4.830 -11.355 -25.691  0.00  0.00           C
ATOM   1592  O   ILE A 225      -4.568 -11.181 -26.903  0.00  0.00           O
ATOM   1593  CB  ILE A 225      -3.595 -10.158 -23.826  0.00  0.00           C
ATOM   1594  CG1 ILE A 225      -3.294  -8.723 -23.304  0.00  0.00           C
ATOM   1595  CG2 ILE A 225      -2.310 -10.811 -24.403  0.00  0.00           C
ATOM   1596  CD1 ILE A 225      -2.662  -7.758 -24.333  0.00  0.00           C
ATOM   1597  N   LEU A 226      -5.155 -12.586 -25.239  0.00  0.00           N
ATOM   1598  CA  LEU A 226      -5.259 -13.726 -26.105  0.00  0.00           C
ATOM   1599  C   LEU A 226      -6.244 -13.533 -27.203  0.00  0.00           C
ATOM   1600  O   LEU A 226      -5.880 -13.783 -28.375  0.00  0.00           O
ATOM   1601  CB  LEU A 226      -5.578 -15.006 -25.295  0.00  0.00           C
ATOM   1602  CG  LEU A 226      -4.497 -15.403 -24.252  0.00  0.00           C
ATOM   1603  CD1 LEU A 226      -5.003 -16.591 -23.407  0.00  0.00           C
ATOM   1604  CD2 LEU A 226      -3.142 -15.769 -24.900  0.00  0.00           C
ATOM   1605  N   LYS A 227      -7.500 -13.086 -26.975  0.00  0.00           N
ATOM   1606  CA  LYS A 227      -8.450 -12.836 -28.027  0.00  0.00           C
ATOM   1607  C   LYS A 227      -8.084 -11.780 -29.012  0.00  0.00           C
ATOM   1608  O   LYS A 227      -8.692 -11.775 -30.107  0.00  0.00           O
ATOM   1609  CB  LYS A 227      -9.825 -12.486 -27.407  0.00  0.00           C
ATOM   1610  CG  LYS A 227     -10.478 -13.669 -26.655  0.00  0.00           C
ATOM   1611  CD  LYS A 227     -11.891 -13.334 -26.116  0.00  0.00           C
ATOM   1612  CE  LYS A 227     -11.970 -12.129 -25.156  0.00  0.00           C
ATOM   1613  NZ  LYS A 227     -11.214 -12.360 -23.921  0.00  0.00           N1+
ATOM   1614  N   ILE A 228      -7.154 -10.830 -28.773  0.00  0.00           N1+
ATOM   1615  CA  ILE A 228      -6.711  -9.862 -29.740  0.00  0.00           C
ATOM   1616  C   ILE A 228      -5.222  -9.907 -29.780  0.00  0.00           C
ATOM   1617  O   ILE A 228      -4.586  -9.094 -29.069  0.00  0.00           O
ATOM   1618  CB  ILE A 228      -7.384  -8.470 -29.502  0.00  0.00           C
ATOM   1619  CG1 ILE A 228      -6.934  -7.424 -30.561  0.00  0.00           C
ATOM   1620  CG2 ILE A 228      -7.232  -7.910 -28.065  0.00  0.00           C
ATOM   1621  CD1 ILE A 228      -8.006  -6.348 -30.833  0.00  0.00           C
ATOM   1622  N   PRO A 229      -4.527 -10.841 -30.498  0.00  0.00           N
ATOM   1623  CA  PRO A 229      -3.118 -11.070 -30.342  0.00  0.00           C
ATOM   1624  C   PRO A 229      -2.245  -9.911 -30.365  0.00  0.00           C
ATOM   1625  O   PRO A 229      -1.953  -9.336 -31.404  0.00  0.00           O
ATOM   1626  CB  PRO A 229      -2.755 -12.110 -31.422  0.00  0.00           C
ATOM   1627  CG  PRO A 229      -4.075 -12.841 -31.664  0.00  0.00           C
ATOM   1628  CD  PRO A 229      -5.134 -11.763 -31.407  0.00  0.00           C
ATOM   1629  N   SER A 230      -1.768  -9.503 -29.209  0.00  0.00           N
ATOM   1630  CA  SER A 230      -0.809  -8.468 -28.999  0.00  0.00           C
ATOM   1631  C   SER A 230       0.365  -9.016 -28.285  0.00  0.00           C
ATOM   1632  O   SER A 230       0.308 -10.118 -27.690  0.00  0.00           O
ATOM   1633  CB  SER A 230      -1.497  -7.323 -28.221  0.00  0.00           C
ATOM   1634  OG  SER A 230      -0.574  -6.421 -27.612  0.00  0.00           O
ATOM   1635  N   ALA A 231       1.515  -8.316 -28.292  0.00  0.00           N
ATOM   1636  CA  ALA A 231       2.719  -8.697 -27.629  0.00  0.00           C
ATOM   1637  C   ALA A 231       2.995  -7.639 -26.631  0.00  0.00           C
ATOM   1638  O   ALA A 231       2.227  -7.526 -25.650  0.00  0.00           O
ATOM   1639  CB  ALA A 231       3.794  -8.886 -28.723  0.00  0.00           C
ATOM   1640  N   GLN A 232       3.984  -6.742 -26.840  0.00  0.00           N
ATOM   1641  CA  GLN A 232       4.106  -5.450 -26.228  0.00  0.00           C
ATOM   1642  C   GLN A 232       4.385  -5.405 -24.792  0.00  0.00           C
ATOM   1643  O   GLN A 232       3.890  -6.175 -23.983  0.00  0.00           O
ATOM   1644  CB  GLN A 232       2.918  -4.563 -26.702  0.00  0.00           C
ATOM   1645  CG  GLN A 232       2.928  -4.352 -28.248  0.00  0.00           C
ATOM   1646  CD  GLN A 232       1.645  -4.639 -28.902  0.00  0.00           C
ATOM   1647  OE1 GLN A 232       1.427  -5.756 -29.418  0.00  0.00           O
ATOM   1648  NE2 GLN A 232       0.674  -3.728 -28.975  0.00  0.00           N
ATOM   1649  N   GLY A 233       5.262  -4.516 -24.366  0.00  0.00           N1+
ATOM   1650  CA  GLY A 233       5.880  -4.470 -23.073  0.00  0.00           C
ATOM   1651  C   GLY A 233       5.032  -4.356 -21.872  0.00  0.00           C
ATOM   1652  O   GLY A 233       5.335  -5.028 -20.861  0.00  0.00           O
ATOM   1653  N   LYS A 234       3.988  -3.506 -21.826  0.00  0.00           N
ATOM   1654  CA  LYS A 234       3.235  -3.171 -20.648  0.00  0.00           C
ATOM   1655  C   LYS A 234       2.732  -4.355 -19.893  0.00  0.00           C
ATOM   1656  O   LYS A 234       2.716  -4.356 -18.637  0.00  0.00           O
ATOM   1657  CB  LYS A 234       2.090  -2.211 -21.074  0.00  0.00           C
ATOM   1658  CG  LYS A 234       2.573  -0.947 -21.846  0.00  0.00           C
ATOM   1659  CD  LYS A 234       2.457   0.376 -21.051  0.00  0.00           C
ATOM   1660  CE  LYS A 234       1.087   1.063 -21.239  0.00  0.00           C
ATOM   1661  NZ  LYS A 234       0.966   2.233 -20.373  0.00  0.00           N1+
ATOM   1662  N   ARG A 235       2.379  -5.480 -20.551  0.00  0.00           N
ATOM   1663  CA  ARG A 235       1.918  -6.671 -19.908  0.00  0.00           C
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ATOM   1664  C   ARG A 235       2.989  -7.442 -19.212  0.00  0.00           C
ATOM   1665  O   ARG A 235       2.668  -8.369 -18.428  0.00  0.00           O
ATOM   1666  CB  ARG A 235       1.178  -7.504 -20.982  0.00  0.00           C
ATOM   1667  CG  ARG A 235       0.191  -8.548 -20.393  0.00  0.00           C
ATOM   1668  CD  ARG A 235       0.498  -9.976 -20.872  0.00  0.00           C
ATOM   1669  NE  ARG A 235       1.706 -10.399 -20.255  0.00  0.00           N
ATOM   1670  CZ  ARG A 235       2.402 -11.473 -20.620  0.00  0.00           C
ATOM   1671  NH1 ARG A 235       2.139 -12.177 -21.712  0.00  0.00           N
ATOM   1672  NH2 ARG A 235       3.395 -11.850 -19.837  0.00  0.00           N1+
ATOM   1673  N   LYS A 236       4.301  -7.145 -19.369  0.00  0.00           N
ATOM   1674  CA  LYS A 236       5.365  -7.720 -18.603  0.00  0.00           C
ATOM   1675  C   LYS A 236       5.430  -7.022 -17.301  0.00  0.00           C
ATOM   1676  O   LYS A 236       5.535  -7.697 -16.251  0.00  0.00           O
ATOM   1677  CB  LYS A 236       6.708  -7.578 -19.363  0.00  0.00           C
ATOM   1678  CG  LYS A 236       7.898  -8.219 -18.603  0.00  0.00           C
ATOM   1679  CD  LYS A 236       9.227  -7.476 -18.870  0.00  0.00           C
ATOM   1680  CE  LYS A 236      10.289  -7.829 -17.812  0.00  0.00           C
ATOM   1681  NZ  LYS A 236      11.433  -6.921 -17.948  0.00  0.00           N1+
ATOM   1682  N   ALA A 237       5.348  -5.676 -17.252  0.00  0.00           N
ATOM   1683  CA  ALA A 237       5.227  -4.928 -16.042  0.00  0.00           C
ATOM   1684  C   ALA A 237       4.042  -5.399 -15.285  0.00  0.00           C
ATOM   1685  O   ALA A 237       4.181  -5.764 -14.094  0.00  0.00           O
ATOM   1686  CB  ALA A 237       5.158  -3.427 -16.393  0.00  0.00           C
ATOM   1687  N   PHE A 238       2.852  -5.530 -15.913  0.00  0.00           N
ATOM   1688  CA  PHE A 238       1.701  -6.106 -15.285  0.00  0.00           C
ATOM   1689  C   PHE A 238       1.918  -7.491 -14.768  0.00  0.00           C
ATOM   1690  O   PHE A 238       1.654  -7.737 -13.565  0.00  0.00           O
ATOM   1691  CB  PHE A 238       0.495  -5.944 -16.241  0.00  0.00           C
ATOM   1692  CG  PHE A 238      -0.817  -6.251 -15.631  0.00  0.00           C
ATOM   1693  CD1 PHE A 238      -1.176  -5.728 -14.377  0.00  0.00           C
ATOM   1694  CD2 PHE A 238      -1.741  -7.059 -16.316  0.00  0.00           C
ATOM   1695  CE1 PHE A 238      -2.391  -6.070 -13.781  0.00  0.00           C
ATOM   1696  CE2 PHE A 238      -2.986  -7.350 -15.747  0.00  0.00           C
ATOM   1697  CZ  PHE A 238      -3.308  -6.864 -14.475  0.00  0.00           C
ATOM   1698  N   SER A 239       2.460  -8.484 -15.514  0.00  0.00           N
ATOM   1699  CA  SER A 239       2.853  -9.749 -14.946  0.00  0.00           C
ATOM   1700  C   SER A 239       3.785  -9.637 -13.785  0.00  0.00           C
ATOM   1701  O   SER A 239       3.556 -10.290 -12.742  0.00  0.00           O
ATOM   1702  CB  SER A 239       3.470 -10.663 -16.028  0.00  0.00           C
ATOM   1703  OG  SER A 239       2.566 -10.903 -17.106  0.00  0.00           O
ATOM   1704  N   THR A 240       4.875  -8.838 -13.813  0.00  0.00           N
ATOM   1705  CA  THR A 240       5.764  -8.607 -12.700  0.00  0.00           C
ATOM   1706  C   THR A 240       5.031  -8.156 -11.491  0.00  0.00           C
ATOM   1707  O   THR A 240       5.177  -8.753 -10.396  0.00  0.00           O
ATOM   1708  CB  THR A 240       6.855  -7.564 -13.081  0.00  0.00           C
ATOM   1709  OG1 THR A 240       7.496  -7.929 -14.303  0.00  0.00           O
ATOM   1710  CG2 THR A 240       7.951  -7.414 -12.007  0.00  0.00           C
ATOM   1711  N   CYS A 241       4.183  -7.112 -11.587  0.00  0.00           N
ATOM   1712  CA  CYS A 241       3.393  -6.627 -10.500  0.00  0.00           C
ATOM   1713  C   CYS A 241       2.469  -7.659  -9.945  0.00  0.00           C
ATOM   1714  O   CYS A 241       2.466  -7.880  -8.710  0.00  0.00           O
ATOM   1715  CB  CYS A 241       2.751  -5.294 -10.950  0.00  0.00           C
ATOM   1716  SG  CYS A 241       1.158  -5.436 -11.780  0.00  0.00           S
ATOM   1717  N   SER A 242       1.701  -8.437 -10.746  0.00  0.00           N
ATOM   1718  CA  SER A 242       0.928  -9.548 -10.246  0.00  0.00           C
ATOM   1719  C   SER A 242       1.755 -10.577  -9.557  0.00  0.00           C
ATOM   1720  O   SER A 242       1.359 -11.076  -8.477  0.00  0.00           O
ATOM   1721  CB  SER A 242       0.122 -10.218 -11.379  0.00  0.00           C
ATOM   1722  OG  SER A 242       0.987 -10.955 -12.236  0.00  0.00           O
ATOM   1723  N   SER A 243       2.932 -10.986 -10.091  0.00  0.00           N
ATOM   1724  CA  SER A 243       3.861 -11.860  -9.426  0.00  0.00           C
ATOM   1725  C   SER A 243       4.216 -11.385  -8.064  0.00  0.00           C
ATOM   1726  O   SER A 243       4.070 -12.175  -7.102  0.00  0.00           O
ATOM   1727  CB  SER A 243       5.149 -12.053 -10.259  0.00  0.00           C
ATOM   1728  OG  SER A 243       4.860 -12.443 -11.600  0.00  0.00           O
ATOM   1729  N   HIS A 244       4.643 -10.116  -7.859  0.00  0.00           N
ATOM   1730  CA  HIS A 244       4.894  -9.553  -6.555  0.00  0.00           C
ATOM   1731  C   HIS A 244       3.773  -9.810  -5.607  0.00  0.00           C
ATOM   1732  O   HIS A 244       4.005 -10.443  -4.548  0.00  0.00           O
ATOM   1733  CB  HIS A 244       5.218  -8.095  -6.689  1.00  0.00           C
ATOM   1734  CG  HIS A 244       5.728  -7.400  -5.448  1.00  0.00           C
ATOM   1735  ND1 HIS A 244       4.912  -6.905  -4.513  1.00  0.00           N1+
ATOM   1736  CD2 HIS A 244       7.006  -7.133  -5.020  1.00  0.00           C
ATOM   1737  CE1 HIS A 244       5.652  -6.350  -3.540  1.00  0.00           C
ATOM   1738  NE2 HIS A 244       6.953  -6.461  -3.805  1.00  0.00           N
ATOM   1739  N   LEU A 245       2.508  -9.457  -5.929  0.00  0.00           N
ATOM   1740  CA  LEU A 245       1.361  -9.740  -5.106  0.00  0.00           C
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ATOM   1741  C   LEU A 245       1.156 -11.181  -4.835  0.00  0.00           C
ATOM   1742  O   LEU A 245       0.927 -11.573  -3.667  0.00  0.00           O
ATOM   1743  CB  LEU A 245       0.110  -9.132  -5.777  0.00  0.00           C
ATOM   1744  CG  LEU A 245      -1.187  -9.144  -4.924  0.00  0.00           C
ATOM   1745  CD1 LEU A 245      -1.074  -8.219  -3.690  0.00  0.00           C
ATOM   1746  CD2 LEU A 245      -2.384  -8.703  -5.793  0.00  0.00           C
ATOM   1747  N   SER A 246       1.212 -12.081  -5.838  0.00  0.00           N
ATOM   1748  CA  SER A 246       1.110 -13.498  -5.646  0.00  0.00           C
ATOM   1749  C   SER A 246       2.078 -13.996  -4.634  0.00  0.00           C
ATOM   1750  O   SER A 246       1.671 -14.688  -3.667  0.00  0.00           O
ATOM   1751  CB  SER A 246       1.310 -14.227  -6.994  0.00  0.00           C
ATOM   1752  OG  SER A 246       0.477 -13.684  -8.019  0.00  0.00           O
ATOM   1753  N   VAL A 247       3.382 -13.650  -4.732  0.00  0.00           N
ATOM   1754  CA  VAL A 247       4.379 -13.990  -3.756  0.00  0.00           C
ATOM   1755  C   VAL A 247       4.054 -13.412  -2.422  0.00  0.00           C
ATOM   1756  O   VAL A 247       4.039 -14.195  -1.441  0.00  0.00           O
ATOM   1757  CB  VAL A 247       5.798 -13.596  -4.263  0.00  0.00           C
ATOM   1758  CG1 VAL A 247       6.895 -13.987  -3.246  0.00  0.00           C
ATOM   1759  CG2 VAL A 247       6.149 -14.286  -5.605  0.00  0.00           C
ATOM   1760  N   VAL A 248       3.721 -12.106  -2.261  0.00  0.00           N
ATOM   1761  CA  VAL A 248       3.255 -11.530  -1.020  0.00  0.00           C
ATOM   1762  C   VAL A 248       2.193 -12.359  -0.407  0.00  0.00           C
ATOM   1763  O   VAL A 248       2.334 -12.740   0.778  0.00  0.00           O
ATOM   1764  CB  VAL A 248       2.765 -10.060  -1.225  0.00  0.00           C
ATOM   1765  CG1 VAL A 248       1.847  -9.526  -0.095  0.00  0.00           C
ATOM   1766  CG2 VAL A 248       3.957  -9.093  -1.374  0.00  0.00           C
ATOM   1767  N   SER A 249       1.099 -12.709  -1.120  0.00  0.00           N
ATOM   1768  CA  SER A 249       0.055 -13.541  -0.607  0.00  0.00           C
ATOM   1769  C   SER A 249       0.582 -14.832  -0.106  0.00  0.00           C
ATOM   1770  O   SER A 249       0.457 -15.105   1.114  0.00  0.00           O
ATOM   1771  CB  SER A 249      -1.075 -13.716  -1.652  0.00  0.00           C
ATOM   1772  OG  SER A 249      -0.870 -14.780  -2.582  0.00  0.00           O
ATOM   1773  N   LEU A 250       1.268 -15.664  -0.925  0.00  0.00           N
ATOM   1774  CA  LEU A 250       1.788 -16.932  -0.506  0.00  0.00           C
ATOM   1775  C   LEU A 250       2.620 -16.824   0.716  0.00  0.00           C
ATOM   1776  O   LEU A 250       2.398 -17.599   1.675  0.00  0.00           O
ATOM   1777  CB  LEU A 250       2.566 -17.580  -1.681  0.00  0.00           C
ATOM   1778  CG  LEU A 250       3.104 -19.013  -1.399  0.00  0.00           C
ATOM   1779  CD1 LEU A 250       1.975 -20.033  -1.124  0.00  0.00           C
ATOM   1780  CD2 LEU A 250       3.962 -19.502  -2.586  0.00  0.00           C
ATOM   1781  N   PHE A 251       3.580 -15.880   0.804  0.00  0.00           N
ATOM   1782  CA  PHE A 251       4.425 -15.705   1.944  0.00  0.00           C
ATOM   1783  C   PHE A 251       3.764 -15.203   3.182  0.00  0.00           C
ATOM   1784  O   PHE A 251       4.471 -15.182   4.218  0.00  0.00           O
ATOM   1785  CB  PHE A 251       5.594 -14.774   1.516  0.00  0.00           C
ATOM   1786  CG  PHE A 251       6.629 -15.329   0.603  0.00  0.00           C
ATOM   1787  CD1 PHE A 251       6.591 -16.627   0.057  0.00  0.00           C
ATOM   1788  CD2 PHE A 251       7.728 -14.509   0.286  0.00  0.00           C
ATOM   1789  CE1 PHE A 251       7.628 -17.095  -0.760  0.00  0.00           C
ATOM   1790  CE2 PHE A 251       8.772 -14.977  -0.521  0.00  0.00           C
ATOM   1791  CZ  PHE A 251       8.724 -16.274  -1.044  0.00  0.00           C
ATOM   1792  N   PHE A 252       2.472 -14.797   3.261  0.00  0.00           N
ATOM   1793  CA  PHE A 252       1.863 -14.322   4.480  0.00  0.00           C
ATOM   1794  C   PHE A 252       0.581 -15.005   4.791  0.00  0.00           C
ATOM   1795  O   PHE A 252       0.157 -15.065   5.974  0.00  0.00           O
ATOM   1796  CB  PHE A 252       1.692 -12.784   4.378  0.00  0.00           C
ATOM   1797  CG  PHE A 252       1.323 -12.158   5.668  0.00  0.00           C
ATOM   1798  CD1 PHE A 252       2.226 -12.155   6.745  0.00  0.00           C
ATOM   1799  CD2 PHE A 252       0.057 -11.571   5.842  0.00  0.00           C
ATOM   1800  CE1 PHE A 252       1.854 -11.622   7.985  0.00  0.00           C
ATOM   1801  CE2 PHE A 252      -0.308 -11.019   7.077  0.00  0.00           C
ATOM   1802  CZ  PHE A 252       0.587 -11.052   8.153  0.00  0.00           C
ATOM   1803  N   GLY A 253      -0.137 -15.583   3.803  0.00  0.00           N
ATOM   1804  CA  GLY A 253      -1.331 -16.340   3.994  0.00  0.00           C
ATOM   1805  C   GLY A 253      -1.243 -17.356   5.056  0.00  0.00           C
ATOM   1806  O   GLY A 253      -2.133 -17.382   5.932  0.00  0.00           O
ATOM   1807  N   THR A 254      -0.212 -18.225   5.103  0.00  0.00           N
ATOM   1808  CA  THR A 254      -0.050 -19.249   6.100  0.00  0.00           C
ATOM   1809  C   THR A 254      -0.041 -18.733   7.461  0.00  0.00           C
ATOM   1810  O   THR A 254      -0.790 -19.250   8.281  0.00  0.00           O
ATOM   1811  CB  THR A 254       1.248 -20.062   5.856  0.00  0.00           C
ATOM   1812  OG1 THR A 254       2.372 -19.195   5.930  0.00  0.00           O
ATOM   1813  CG2 THR A 254       1.270 -20.782   4.496  0.00  0.00           C
ATOM   1814  N   SER A 255       0.730 -17.713   7.802  0.00  0.00           N
ATOM   1815  CA  SER A 255       0.732 -17.121   9.107  0.00  0.00           C
ATOM   1816  C   SER A 255      -0.591 -16.544   9.417  0.00  0.00           C
ATOM   1817  O   SER A 255      -1.144 -16.924  10.468  0.00  0.00           O
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ATOM   1818  CB  SER A 255       1.828 -16.050   9.265  0.00  0.00           C
ATOM   1819  OG  SER A 255       1.660 -15.008   8.312  0.00  0.00           O
ATOM   1820  N   PHE A 256      -1.245 -15.711   8.569  0.00  0.00           N
ATOM   1821  CA  PHE A 256      -2.575 -15.239   8.854  0.00  0.00           C
ATOM   1822  C   PHE A 256      -3.551 -16.347   9.082  0.00  0.00           C
ATOM   1823  O   PHE A 256      -4.353 -16.265  10.040  0.00  0.00           O
ATOM   1824  CB  PHE A 256      -3.030 -14.270   7.736  0.00  0.00           C
ATOM   1825  CG  PHE A 256      -4.414 -13.785   7.942  0.00  0.00           C
ATOM   1826  CD1 PHE A 256      -5.489 -14.436   7.311  0.00  0.00           C
ATOM   1827  CD2 PHE A 256      -4.683 -12.698   8.793  0.00  0.00           C
ATOM   1828  CE1 PHE A 256      -6.807 -14.019   7.534  0.00  0.00           C
ATOM   1829  CE2 PHE A 256      -6.001 -12.268   8.998  0.00  0.00           C
ATOM   1830  CZ  PHE A 256      -7.064 -12.933   8.378  0.00  0.00           C
ATOM   1831  N   CYS A 257      -3.590 -17.445   8.295  0.00  0.00           N
ATOM   1832  CA  CYS A 257      -4.415 -18.593   8.552  0.00  0.00           C
ATOM   1833  C   CYS A 257      -4.123 -19.218   9.865  0.00  0.00           C
ATOM   1834  O   CYS A 257      -5.060 -19.412  10.674  0.00  0.00           O
ATOM   1835  CB  CYS A 257      -4.267 -19.647   7.432  0.00  0.00           C
ATOM   1836  SG  CYS A 257      -4.755 -18.984   5.828  0.00  0.00           S
ATOM   1837  N   VAL A 258      -2.863 -19.548  10.222  0.00  0.00           N
ATOM   1838  CA  VAL A 258      -2.509 -20.036  11.526  0.00  0.00           C
ATOM   1839  C   VAL A 258      -2.998 -19.110  12.582  0.00  0.00           C
ATOM   1840  O   VAL A 258      -3.684 -19.568  13.526  0.00  0.00           O
ATOM   1841  CB  VAL A 258      -0.975 -20.304  11.560  0.00  0.00           C
ATOM   1842  CG1 VAL A 258      -0.402 -20.420  12.988  0.00  0.00           C
ATOM   1843  CG2 VAL A 258      -0.633 -21.604  10.791  0.00  0.00           C
ATOM   1844  N   ASP A 259      -2.796 -17.782  12.494  0.00  0.00           N
ATOM   1845  CA  ASP A 259      -3.335 -16.796  13.377  0.00  0.00           C
ATOM   1846  C   ASP A 259      -4.825 -16.758  13.432  0.00  0.00           C
ATOM   1847  O   ASP A 259      -5.336 -16.033  14.318  0.00  0.00           O
ATOM   1848  CB  ASP A 259      -2.780 -15.401  12.976  0.00  0.00           C
ATOM   1849  CG  ASP A 259      -1.318 -15.230  13.025  0.00  0.00           C
ATOM   1850  OD1 ASP A 259      -0.545 -16.114  13.453  0.00  0.00           O
ATOM   1851  OD2 ASP A 259      -0.815 -14.156  12.628  0.00  0.00           O1-
ATOM   1852  N   PHE A 260      -5.652 -17.479  12.629  0.00  0.00           N
ATOM   1853  CA  PHE A 260      -7.081 -17.518  12.773  0.00  0.00           C
ATOM   1854  C   PHE A 260      -7.562 -18.881  13.095  0.00  0.00           C
ATOM   1855  O   PHE A 260      -8.655 -19.020  13.692  0.00  0.00           O
ATOM   1856  CB  PHE A 260      -7.817 -16.903  11.557  0.00  0.00           C
ATOM   1857  CG  PHE A 260      -8.908 -16.032  12.046  0.00  0.00           C
ATOM   1858  CD1 PHE A 260      -8.629 -14.692  12.356  0.00  0.00           C
ATOM   1859  CD2 PHE A 260     -10.198 -16.534  12.290  0.00  0.00           C
ATOM   1860  CE1 PHE A 260      -9.613 -13.870  12.916  0.00  0.00           C
ATOM   1861  CE2 PHE A 260     -11.186 -15.711  12.848  0.00  0.00           C
ATOM   1862  CZ  PHE A 260     -10.893 -14.379  13.164  0.00  0.00           C
ATOM   1863  N   SER A 261      -6.802 -19.969  12.856  0.00  0.00           N
ATOM   1864  CA  SER A 261      -6.984 -21.201  13.570  0.00  0.00           C
ATOM   1865  C   SER A 261      -6.678 -21.006  15.012  0.00  0.00           C
ATOM   1866  O   SER A 261      -7.471 -21.430  15.878  0.00  0.00           O
ATOM   1867  CB  SER A 261      -6.125 -22.344  12.987  0.00  0.00           C
ATOM   1868  OG  SER A 261      -4.745 -22.139  13.266  0.00  0.00           O
ATOM   1869  N   SER A 262      -5.565 -20.353  15.417  0.00  0.00           N
ATOM   1870  CA  SER A 262      -5.189 -20.121  16.785  0.00  0.00           C
ATOM   1871  C   SER A 262      -6.234 -19.624  17.732  0.00  0.00           C
ATOM   1872  O   SER A 262      -6.342 -20.256  18.812  0.00  0.00           O
ATOM   1873  CB  SER A 262      -3.937 -19.224  16.864  0.00  0.00           C
ATOM   1874  OG  SER A 262      -2.868 -19.819  16.140  0.00  0.00           O
ATOM   1875  N   PRO A 263      -7.073 -18.567  17.523  0.00  0.00           N
ATOM   1876  CA  PRO A 263      -8.137 -18.210  18.423  0.00  0.00           C
ATOM   1877  C   PRO A 263      -9.184 -19.243  18.592  0.00  0.00           C
ATOM   1878  O   PRO A 263     -10.045 -19.071  19.485  0.00  0.00           O
ATOM   1879  CB  PRO A 263      -8.728 -16.908  17.844  0.00  0.00           C
ATOM   1880  CG  PRO A 263      -8.331 -16.967  16.371  0.00  0.00           C
ATOM   1881  CD  PRO A 263      -6.973 -17.674  16.424  0.00  0.00           C
ATOM   1882  N   SER A 264      -9.186 -20.387  17.872  0.00  0.00           N
ATOM   1883  CA  SER A 264      -9.950 -21.533  18.224  0.00  0.00           C
ATOM   1884  C   SER A 264      -9.002 -22.479  18.858  0.00  0.00           C
ATOM   1885  O   SER A 264      -9.288 -22.931  19.988  0.00  0.00           O
ATOM   1886  CB  SER A 264     -10.688 -22.136  17.003  0.00  0.00           C
ATOM   1887  OG  SER A 264      -9.804 -22.835  16.131  0.00  0.00           O
ATOM   1888  N   THR A 265      -7.843 -22.844  18.240  0.00  0.00           N
ATOM   1889  CA  THR A 265      -6.921 -23.825  18.762  0.00  0.00           C
ATOM   1890  C   THR A 265      -5.450 -23.605  18.473  0.00  0.00           C
ATOM   1891  O   THR A 265      -4.829 -24.449  17.786  0.00  0.00           O
ATOM   1892  CB  THR A 265      -7.419 -25.256  18.343  0.00  0.00           C
ATOM   1893  OG1 THR A 265      -7.219 -25.437  16.948  0.00  0.00           O
ATOM   1894  CG2 THR A 265      -8.891 -25.612  18.636  0.00  0.00           C
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ATOM   1895  N   HIS A 266      -4.770 -22.539  18.977  0.00  0.00           N1+
ATOM   1896  CA  HIS A 266      -3.362 -22.313  19.336  0.00  0.00           C
ATOM   1897  C   HIS A 266      -2.188 -22.220  18.385  0.00  0.00           C
ATOM   1898  O   HIS A 266      -2.031 -23.126  17.536  0.00  0.00           O
ATOM   1899  CB  HIS A 266      -2.980 -23.158  20.589  0.00  0.00           C
ATOM   1900  CG  HIS A 266      -2.473 -24.528  20.365  0.00  0.00           C
ATOM   1901  ND1 HIS A 266      -2.984 -25.422  19.520  0.00  0.00           N
ATOM   1902  CD2 HIS A 266      -1.410 -25.169  20.995  0.00  0.00           C
ATOM   1903  CE1 HIS A 266      -2.316 -26.576  19.628  0.00  0.00           C
ATOM   1904  NE2 HIS A 266      -1.339 -26.431  20.538  0.00  0.00           N
ATOM   1905  N   SER A 267      -1.231 -21.239  18.515  0.00  0.00           N
ATOM   1906  CA  SER A 267       0.076 -21.148  17.858  0.00  0.00           C
ATOM   1907  C   SER A 267       1.003 -20.072  18.365  0.00  0.00           C
ATOM   1908  O   SER A 267       0.781 -19.555  19.483  0.00  0.00           O
ATOM   1909  CB  SER A 267      -0.032 -21.067  16.318  0.00  0.00           C
ATOM   1910  OG  SER A 267       1.225 -21.390  15.711  0.00  0.00           O
ATOM   1911  N   ALA A 268       2.131 -19.705  17.688  0.00  0.00           N1+
ATOM   1912  CA  ALA A 268       3.271 -18.923  18.157  0.00  0.00           C
ATOM   1913  C   ALA A 268       3.673 -17.687  17.454  0.00  0.00           C
ATOM   1914  O   ALA A 268       3.401 -17.537  16.273  0.00  0.00           O
ATOM   1915  CB  ALA A 268       4.472 -19.898  18.117  0.00  0.00           C
ATOM   1916  N   GLN A 269       4.400 -16.765  18.074  0.00  0.00           N
ATOM   1917  CA  GLN A 269       4.826 -15.477  17.571  0.00  0.00           C
ATOM   1918  C   GLN A 269       6.001 -15.409  16.656  0.00  0.00           C
ATOM   1919  O   GLN A 269       5.929 -14.687  15.636  0.00  0.00           O
ATOM   1920  CB  GLN A 269       5.089 -14.529  18.782  0.00  0.00           C
ATOM   1921  CG  GLN A 269       6.319 -14.856  19.677  0.00  0.00           C
ATOM   1922  CD  GLN A 269       6.316 -16.245  20.135  0.00  0.00           C
ATOM   1923  OE1 GLN A 269       7.109 -17.074  19.640  0.00  0.00           O
ATOM   1924  NE2 GLN A 269       5.398 -16.666  21.009  0.00  0.00           N
ATOM   1925  N   LYS A 270       7.192 -15.996  16.922  0.00  0.00           N
ATOM   1926  CA  LYS A 270       8.367 -15.827  16.093  0.00  0.00           C
ATOM   1927  C   LYS A 270       8.158 -16.071  14.638  0.00  0.00           C
ATOM   1928  O   LYS A 270       8.839 -15.459  13.778  0.00  0.00           O
ATOM   1929  CB  LYS A 270       9.551 -16.668  16.629  0.00  0.00           C
ATOM   1930  CG  LYS A 270       9.240 -18.178  16.782  0.00  0.00           C
ATOM   1931  CD  LYS A 270      10.508 -19.028  17.029  0.00  0.00           C
ATOM   1932  CE  LYS A 270      11.295 -19.383  15.749  0.00  0.00           C
ATOM   1933  NZ  LYS A 270      10.590 -20.386  14.942  0.00  0.00           N1+
ATOM   1934  N   ASP A 271       7.204 -16.935  14.242  0.00  0.00           N
ATOM   1935  CA  ASP A 271       6.903 -17.257  12.885  0.00  0.00           C
ATOM   1936  C   ASP A 271       6.011 -16.251  12.262  0.00  0.00           C
ATOM   1937  O   ASP A 271       6.140 -15.995  11.043  0.00  0.00           O
ATOM   1938  CB  ASP A 271       6.352 -18.703  12.875  0.00  0.00           C
ATOM   1939  CG  ASP A 271       7.369 -19.692  13.267  0.00  0.00           C
ATOM   1940  OD1 ASP A 271       8.566 -19.378  13.456  0.00  0.00           O
ATOM   1941  OD2 ASP A 271       7.072 -20.891  13.439  0.00  0.00           O1-
ATOM   1942  N   THR A 272       5.182 -15.504  13.023  0.00  0.00           N
ATOM   1943  CA  THR A 272       4.485 -14.331  12.588  0.00  0.00           C
ATOM   1944  C   THR A 272       5.485 -13.331  12.139  0.00  0.00           C
ATOM   1945  O   THR A 272       5.437 -12.846  10.983  0.00  0.00           O
ATOM   1946  CB  THR A 272       3.645 -13.790  13.780  0.00  0.00           C
ATOM   1947  OG1 THR A 272       2.857 -14.814  14.379  0.00  0.00           O
ATOM   1948  CG2 THR A 272       2.699 -12.646  13.409  0.00  0.00           C
ATOM   1949  N   VAL A 273       6.506 -13.022  12.970  0.00  0.00           N
ATOM   1950  CA  VAL A 273       7.601 -12.155  12.640  0.00  0.00           C
ATOM   1951  C   VAL A 273       8.326 -12.633  11.429  0.00  0.00           C
ATOM   1952  O   VAL A 273       8.488 -11.846  10.463  0.00  0.00           O
ATOM   1953  CB  VAL A 273       8.531 -12.019  13.882  0.00  0.00           C
ATOM   1954  CG1 VAL A 273       9.784 -11.166  13.603  0.00  0.00           C
ATOM   1955  CG2 VAL A 273       7.800 -11.396  15.095  0.00  0.00           C
ATOM   1956  N   ALA A 274       8.792 -13.901  11.344  0.00  0.00           N
ATOM   1957  CA  ALA A 274       9.386 -14.453  10.158  0.00  0.00           C
ATOM   1958  C   ALA A 274       8.572 -14.260   8.928  0.00  0.00           C
ATOM   1959  O   ALA A 274       9.124 -13.752   7.925  0.00  0.00           O
ATOM   1960  CB  ALA A 274       9.686 -15.947  10.378  0.00  0.00           C
ATOM   1961  N   SER A 275       7.263 -14.589   8.878  0.00  0.00           N
ATOM   1962  CA  SER A 275       6.401 -14.329   7.759  0.00  0.00           C
ATOM   1963  C   SER A 275       6.290 -12.894   7.408  0.00  0.00           C
ATOM   1964  O   SER A 275       6.442 -12.554   6.209  0.00  0.00           O
ATOM   1965  CB  SER A 275       5.009 -14.935   8.020  0.00  0.00           C
ATOM   1966  OG  SER A 275       5.095 -16.359   8.047  0.00  0.00           O
ATOM   1967  N   VAL A 276       6.093 -11.930   8.337  0.00  0.00           N
ATOM   1968  CA  VAL A 276       6.168 -10.529   8.010  0.00  0.00           C
ATOM   1969  C   VAL A 276       7.475 -10.227   7.356  0.00  0.00           C
ATOM   1970  O   VAL A 276       7.490  -9.617   6.258  0.00  0.00           O
ATOM   1971  CB  VAL A 276       5.908  -9.615   9.245  0.00  0.00           C
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ATOM   1972  CG1 VAL A 276       5.952  -8.119   8.855  0.00  0.00           C
ATOM   1973  CG2 VAL A 276       4.534  -9.862   9.909  0.00  0.00           C
ATOM   1974  N   MET A 277       8.646 -10.671   7.868  0.00  0.00           N
ATOM   1975  CA  MET A 277       9.901 -10.523   7.183  0.00  0.00           C
ATOM   1976  C   MET A 277      10.020 -11.238   5.882  0.00  0.00           C
ATOM   1977  O   MET A 277      11.045 -11.028   5.192  0.00  0.00           O
ATOM   1978  CB  MET A 277      11.092 -10.888   8.107  0.00  0.00           C
ATOM   1979  CG  MET A 277      11.374  -9.830   9.195  0.00  0.00           C
ATOM   1980  SD  MET A 277      11.829  -8.207   8.537  0.00  0.00           S
ATOM   1981  CE  MET A 277      13.539  -8.525   8.095  0.00  0.00           C
ATOM   1982  N   TYR A 278       9.055 -12.029   5.365  0.00  0.00           N
ATOM   1983  CA  TYR A 278       9.068 -12.565   4.039  0.00  0.00           C
ATOM   1984  C   TYR A 278       8.299 -11.635   3.189  0.00  0.00           C
ATOM   1985  O   TYR A 278       8.789 -11.256   2.099  0.00  0.00           O
ATOM   1986  CB  TYR A 278       8.463 -13.989   4.014  0.00  0.00           C
ATOM   1987  CG  TYR A 278       9.184 -15.046   4.759  0.00  0.00           C
ATOM   1988  CD1 TYR A 278      10.523 -14.926   5.177  0.00  0.00           C
ATOM   1989  CD2 TYR A 278       8.498 -16.241   5.037  0.00  0.00           C
ATOM   1990  CE1 TYR A 278      11.155 -15.971   5.862  0.00  0.00           C
ATOM   1991  CE2 TYR A 278       9.128 -17.284   5.729  0.00  0.00           C
ATOM   1992  CZ  TYR A 278      10.458 -17.151   6.138  0.00  0.00           C
ATOM   1993  OH  TYR A 278      11.069 -18.160   6.792  0.00  0.00           O
ATOM   1994  N   THR A 279       7.139 -11.106   3.641  0.00  0.00           N
ATOM   1995  CA  THR A 279       6.470 -10.010   2.993  0.00  0.00           C
ATOM   1996  C   THR A 279       7.419  -8.901   2.743  0.00  0.00           C
ATOM   1997  O   THR A 279       7.506  -8.438   1.584  0.00  0.00           O
ATOM   1998  CB  THR A 279       5.250  -9.510   3.807  0.00  0.00           C
ATOM   1999  OG1 THR A 279       4.390 -10.599   4.104  0.00  0.00           O
ATOM   2000  CG2 THR A 279       4.409  -8.462   3.050  0.00  0.00           C
ATOM   2001  N   VAL A 280       8.239  -8.440   3.716  0.00  0.00           N
ATOM   2002  CA  VAL A 280       9.230  -7.423   3.472  0.00  0.00           C
ATOM   2003  C   VAL A 280      10.357  -7.833   2.578  0.00  0.00           C
ATOM   2004  O   VAL A 280      11.187  -6.954   2.261  0.00  0.00           O
ATOM   2005  CB  VAL A 280       9.711  -6.693   4.771  0.00  0.00           C
ATOM   2006  CG1 VAL A 280       8.642  -6.588   5.880  0.00  0.00           C
ATOM   2007  CG2 VAL A 280      11.036  -7.222   5.366  0.00  0.00           C
ATOM   2008  N   VAL A 281      10.529  -9.054   2.018  0.00  0.00           N
ATOM   2009  CA  VAL A 281      11.588  -9.364   1.088  0.00  0.00           C
ATOM   2010  C   VAL A 281      11.092  -9.226  -0.304  0.00  0.00           C
ATOM   2011  O   VAL A 281      11.883  -8.854  -1.205  0.00  0.00           O
ATOM   2012  CB  VAL A 281      12.202 -10.758   1.429  0.00  0.00           C
ATOM   2013  CG1 VAL A 281      12.938 -11.441   0.251  0.00  0.00           C
ATOM   2014  CG2 VAL A 281      13.187 -10.631   2.616  0.00  0.00           C
ATOM   2015  N   THR A 282       9.792  -9.418  -0.612  0.00  0.00           N
ATOM   2016  CA  THR A 282       9.240  -9.240  -1.928  0.00  0.00           C
ATOM   2017  C   THR A 282       9.610  -7.955  -2.584  0.00  0.00           C
ATOM   2018  O   THR A 282      10.004  -8.051  -3.772  0.00  0.00           O
ATOM   2019  CB  THR A 282       7.713  -9.486  -2.000  0.00  0.00           C
ATOM   2020  OG1 THR A 282       6.980  -8.388  -1.485  0.00  0.00           O
ATOM   2021  CG2 THR A 282       7.294 -10.777  -1.275  0.00  0.00           C
ATOM   2022  N   PRO A 283       9.629  -6.723  -1.998  0.00  0.00           N
ATOM   2023  CA  PRO A 283      10.134  -5.544  -2.659  0.00  0.00           C
ATOM   2024  C   PRO A 283      11.544  -5.581  -3.128  0.00  0.00           C
ATOM   2025  O   PRO A 283      11.999  -4.584  -3.739  0.00  0.00           O
ATOM   2026  CB  PRO A 283       9.925  -4.413  -1.635  0.00  0.00           C
ATOM   2027  CG  PRO A 283       9.777  -5.150  -0.304  0.00  0.00           C
ATOM   2028  CD  PRO A 283       9.092  -6.444  -0.706  0.00  0.00           C
ATOM   2029  N   MET A 284      12.358  -6.650  -2.967  0.00  0.00           N
ATOM   2030  CA  MET A 284      13.614  -6.773  -3.644  0.00  0.00           C
ATOM   2031  C   MET A 284      13.532  -7.724  -4.783  0.00  0.00           C
ATOM   2032  O   MET A 284      14.492  -7.799  -5.584  0.00  0.00           O
ATOM   2033  CB  MET A 284      14.712  -7.107  -2.603  0.00  0.00           C
ATOM   2034  CG  MET A 284      14.876  -8.610  -2.292  0.00  0.00           C
ATOM   2035  SD  MET A 284      16.411  -9.213  -3.033  0.00  0.00           S
ATOM   2036  CE  MET A 284      15.923 -10.945  -3.115  0.00  0.00           C
ATOM   2037  N   LEU A 285      12.431  -8.478  -5.012  0.00  0.00           N
ATOM   2038  CA  LEU A 285      12.304  -9.442  -6.060  0.00  0.00           C
ATOM   2039  C   LEU A 285      11.807  -8.811  -7.303  0.00  0.00           C
ATOM   2040  O   LEU A 285      12.060  -9.372  -8.392  0.00  0.00           O
ATOM   2041  CB  LEU A 285      11.382 -10.610  -5.609  0.00  0.00           C
ATOM   2042  CG  LEU A 285      12.019 -11.556  -4.553  0.00  0.00           C
ATOM   2043  CD1 LEU A 285      10.947 -12.447  -3.886  0.00  0.00           C
ATOM   2044  CD2 LEU A 285      13.092 -12.474  -5.180  0.00  0.00           C
ATOM   2045  N   ASN A 286      11.142  -7.635  -7.287  0.00  0.00           N
ATOM   2046  CA  ASN A 286      10.739  -6.879  -8.438  0.00  0.00           C
ATOM   2047  C   ASN A 286      11.880  -6.588  -9.363  0.00  0.00           C
ATOM   2048  O   ASN A 286      11.821  -7.096 -10.514  0.00  0.00           O
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ATOM   2049  CB  ASN A 286       9.942  -5.643  -7.918  0.00  0.00           C
ATOM   2050  CG  ASN A 286       9.840  -4.500  -8.838  0.00  0.00           C
ATOM   2051  OD1 ASN A 286       9.526  -4.680 -10.035  0.00  0.00           O
ATOM   2052  ND2 ASN A 286      10.065  -3.239  -8.447  0.00  0.00           N
ATOM   2053  N   PRO A 287      12.991  -5.864  -9.034  0.00  0.00           N
ATOM   2054  CA  PRO A 287      14.067  -5.636  -9.960  0.00  0.00           C
ATOM   2055  C   PRO A 287      14.698  -6.858 -10.431  0.00  0.00           C
ATOM   2056  O   PRO A 287      14.998  -6.939 -11.616  0.00  0.00           O
ATOM   2057  CB  PRO A 287      15.045  -4.707  -9.214  0.00  0.00           C
ATOM   2058  CG  PRO A 287      14.689  -4.888  -7.737  0.00  0.00           C
ATOM   2059  CD  PRO A 287      13.198  -5.234  -7.768  0.00  0.00           C
ATOM   2060  N   PHE A 288      14.890  -7.884  -9.623  0.00  0.00           N
ATOM   2061  CA  PHE A 288      15.366  -9.168 -10.046  0.00  0.00           C
ATOM   2062  C   PHE A 288      14.469  -9.785 -11.056  0.00  0.00           C
ATOM   2063  O   PHE A 288      14.940 -10.014 -12.193  0.00  0.00           O
ATOM   2064  CB  PHE A 288      15.562 -10.097  -8.818  0.00  0.00           C
ATOM   2065  CG  PHE A 288      16.914  -9.996  -8.223  0.00  0.00           C
ATOM   2066  CD1 PHE A 288      18.037 -10.469  -8.925  0.00  0.00           C
ATOM   2067  CD2 PHE A 288      17.099  -9.454  -6.940  0.00  0.00           C
ATOM   2068  CE1 PHE A 288      19.318 -10.390  -8.362  0.00  0.00           C
ATOM   2069  CE2 PHE A 288      18.378  -9.375  -6.375  0.00  0.00           C
ATOM   2070  CZ  PHE A 288      19.489  -9.839  -7.086  0.00  0.00           C
ATOM   2071  N   ILE A 289      13.164 -10.051 -10.824  0.00  0.00           N
ATOM   2072  CA  ILE A 289      12.257 -10.614 -11.787  0.00  0.00           C
ATOM   2073  C   ILE A 289      12.259  -9.819 -13.032  0.00  0.00           C
ATOM   2074  O   ILE A 289      12.286 -10.417 -14.135  0.00  0.00           O
ATOM   2075  CB  ILE A 289      10.824 -10.758 -11.184  0.00  0.00           C
ATOM   2076  CG1 ILE A 289      10.810 -11.906 -10.135  0.00  0.00           C
ATOM   2077  CG2 ILE A 289       9.740 -11.012 -12.269  0.00  0.00           C
ATOM   2078  CD1 ILE A 289       9.517 -11.982  -9.298  0.00  0.00           C
ATOM   2079  N   TYR A 290      12.272  -8.468 -13.000  0.00  0.00           N
ATOM   2080  CA  TYR A 290      12.346  -7.679 -14.184  0.00  0.00           C
ATOM   2081  C   TYR A 290      13.535  -7.937 -15.046  0.00  0.00           C
ATOM   2082  O   TYR A 290      13.493  -7.406 -16.183  0.00  0.00           O
ATOM   2083  CB  TYR A 290      12.214  -6.178 -13.802  0.00  0.00           C
ATOM   2084  CG  TYR A 290      11.490  -5.365 -14.808  0.00  0.00           C
ATOM   2085  CD1 TYR A 290      10.136  -5.627 -15.081  0.00  0.00           C
ATOM   2086  CD2 TYR A 290      12.120  -4.304 -15.481  0.00  0.00           C
ATOM   2087  CE1 TYR A 290       9.438  -4.882 -16.040  0.00  0.00           C
ATOM   2088  CE2 TYR A 290      11.411  -3.533 -16.414  0.00  0.00           C
ATOM   2089  CZ  TYR A 290      10.079  -3.839 -16.714  0.00  0.00           C
ATOM   2090  OH  TYR A 290       9.407  -3.135 -17.650  0.00  0.00           O
ATOM   2091  N   SER A 291      14.584  -8.735 -14.700  0.00  0.00           N
ATOM   2092  CA  SER A 291      15.750  -9.016 -15.506  0.00  0.00           C
ATOM   2093  C   SER A 291      15.526  -9.861 -16.710  0.00  0.00           C
ATOM   2094  O   SER A 291      16.348 -10.731 -17.082  0.00  0.00           O
ATOM   2095  CB  SER A 291      16.887  -9.617 -14.644  0.00  0.00           C
ATOM   2096  OG  SER A 291      17.101  -8.855 -13.465  0.00  0.00           O
ATOM   2097  N   LEU A 292      14.503  -9.540 -17.519  0.00  0.00           N1+
ATOM   2098  CA  LEU A 292      14.418  -9.877 -18.901  0.00  0.00           C
ATOM   2099  C   LEU A 292      15.090  -8.755 -19.604  0.00  0.00           C
ATOM   2100  O   LEU A 292      15.310  -7.656 -19.043  0.00  0.00           O
ATOM   2101  CB  LEU A 292      12.967 -10.097 -19.402  0.00  0.00           C
ATOM   2102  CG  LEU A 292      12.231 -11.390 -18.954  0.00  0.00           C
ATOM   2103  CD1 LEU A 292      12.869 -12.674 -19.530  0.00  0.00           C
ATOM   2104  CD2 LEU A 292      12.074 -11.529 -17.423  0.00  0.00           C
ATOM   2105  N   ARG A 293      15.556  -8.915 -20.851  0.00  0.00           N
ATOM   2106  CA  ARG A 293      16.661  -8.199 -21.386  0.00  0.00           C
ATOM   2107  C   ARG A 293      16.253  -7.282 -22.477  0.00  0.00           C
ATOM   2108  O   ARG A 293      16.214  -7.681 -23.664  0.00  0.00           O
ATOM   2109  CB  ARG A 293      17.725  -9.291 -21.710  0.00  0.00           C
ATOM   2110  CG  ARG A 293      17.441 -10.399 -22.774  0.00  0.00           C
ATOM   2111  CD  ARG A 293      16.063 -11.109 -22.776  0.00  0.00           C
ATOM   2112  NE  ARG A 293      15.127 -10.171 -23.280  0.00  0.00           N
ATOM   2113  CZ  ARG A 293      13.822 -10.297 -23.484  0.00  0.00           C
ATOM   2114  NH1 ARG A 293      13.122 -11.385 -23.215  0.00  0.00           N
ATOM   2115  NH2 ARG A 293      13.215  -9.233 -23.976  0.00  0.00           N1+
ATOM   2116  N   ASN A 294      15.890  -6.012 -22.187  0.00  0.00           N
ATOM   2117  CA  ASN A 294      15.556  -5.025 -23.176  0.00  0.00           C
ATOM   2118  C   ASN A 294      16.548  -3.927 -23.192  0.00  0.00           C
ATOM   2119  O   ASN A 294      17.342  -3.738 -22.241  0.00  0.00           O
ATOM   2120  CB  ASN A 294      14.121  -4.478 -22.969  0.00  0.00           C
ATOM   2121  CG  ASN A 294      13.435  -4.128 -24.225  0.00  0.00           C
ATOM   2122  OD1 ASN A 294      13.958  -3.384 -25.080  0.00  0.00           O
ATOM   2123  ND2 ASN A 294      12.215  -4.593 -24.498  0.00  0.00           N
ATOM   2124  N   GLN A 295      16.556  -3.121 -24.266  0.00  0.00           N
ATOM   2125  CA  GLN A 295      17.623  -2.257 -24.642  0.00  0.00           C
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ATOM   2126  C   GLN A 295      17.534  -0.939 -24.049  0.00  0.00           C
ATOM   2127  O   GLN A 295      18.543  -0.258 -24.083  0.00  0.00           O
ATOM   2128  CB  GLN A 295      17.713  -2.239 -26.192  0.00  0.00           C
ATOM   2129  CG  GLN A 295      19.117  -1.874 -26.742  0.00  0.00           C
ATOM   2130  CD  GLN A 295      20.147  -2.873 -26.420  0.00  0.00           C
ATOM   2131  OE1 GLN A 295      20.244  -3.944 -27.054  0.00  0.00           O
ATOM   2132  NE2 GLN A 295      21.018  -2.720 -25.419  0.00  0.00           N
ATOM   2133  N   GLU A 296      16.453  -0.532 -23.413  0.00  0.00           N
ATOM   2134  CA  GLU A 296      16.387   0.644 -22.592  0.00  0.00           C
ATOM   2135  C   GLU A 296      16.129   0.287 -21.176  0.00  0.00           C
ATOM   2136  O   GLU A 296      15.867   1.160 -20.317  0.00  0.00           O
ATOM   2137  CB  GLU A 296      15.342   1.619 -23.196  0.00  0.00           C
ATOM   2138  CG  GLU A 296      15.725   3.111 -23.007  0.00  0.00           C
ATOM   2139  CD  GLU A 296      16.837   3.542 -23.871  0.00  0.00           C
ATOM   2140  OE1 GLU A 296      16.644   4.411 -24.746  0.00  0.00           O
ATOM   2141  OE2 GLU A 296      17.974   3.030 -23.765  0.00  0.00           O1-
ATOM   2142  N   ILE A 297      16.261  -0.994 -20.770  0.00  0.00           N
ATOM   2143  CA  ILE A 297      16.206  -1.420 -19.403  0.00  0.00           C
ATOM   2144  C   ILE A 297      17.598  -1.778 -19.055  0.00  0.00           C
ATOM   2145  O   ILE A 297      18.261  -1.141 -18.199  0.00  0.00           O
ATOM   2146  CB  ILE A 297      15.199  -2.606 -19.237  0.00  0.00           C
ATOM   2147  CG1 ILE A 297      13.745  -2.159 -19.563  0.00  0.00           C
ATOM   2148  CG2 ILE A 297      15.266  -3.202 -17.805  0.00  0.00           C
ATOM   2149  CD1 ILE A 297      12.725  -3.311 -19.697  0.00  0.00           C
ATOM   2150  N   LYS A 298      18.195  -2.768 -19.747  0.00  0.00           N
ATOM   2151  CA  LYS A 298      19.468  -3.313 -19.438  0.00  0.00           C
ATOM   2152  C   LYS A 298      20.550  -2.499 -20.046  0.00  0.00           C
ATOM   2153  O   LYS A 298      21.736  -2.893 -19.985  0.00  0.00           O
ATOM   2154  CB  LYS A 298      19.404  -4.782 -19.919  0.00  0.00           C
ATOM   2155  CG  LYS A 298      20.445  -5.711 -19.248  0.00  0.00           C
ATOM   2156  CD  LYS A 298      21.101  -6.678 -20.256  0.00  0.00           C
ATOM   2157  CE  LYS A 298      22.118  -5.965 -21.165  0.00  0.00           C
ATOM   2158  NZ  LYS A 298      22.579  -6.889 -22.201  0.00  0.00           N1+
ATOM   2159  N   SER A 299      20.283  -1.303 -20.611  0.00  0.00           N
ATOM   2160  CA  SER A 299      21.271  -0.311 -20.914  0.00  0.00           C
ATOM   2161  C   SER A 299      21.153   0.820 -19.974  0.00  0.00           C
ATOM   2162  O   SER A 299      22.123   1.604 -19.893  0.00  0.00           O
ATOM   2163  CB  SER A 299      21.157   0.216 -22.359  0.00  0.00           C
ATOM   2164  OG  SER A 299      21.086  -0.852 -23.299  0.00  0.00           O
ATOM   2165  N   SER A 300      20.076   0.956 -19.171  0.00  0.00           N
ATOM   2166  CA  SER A 300      19.848   2.051 -18.278  0.00  0.00           C
ATOM   2167  C   SER A 300      20.375   1.659 -16.963  0.00  0.00           C
ATOM   2168  O   SER A 300      21.087   2.449 -16.307  0.00  0.00           O
ATOM   2169  CB  SER A 300      18.337   2.363 -18.242  0.00  0.00           C
ATOM   2170  OG  SER A 300      17.938   2.801 -19.536  0.00  0.00           O
ATOM   2171  N   LEU A 301      20.219   0.382 -16.552  0.00  0.00           N
ATOM   2172  CA  LEU A 301      20.948  -0.194 -15.461  0.00  0.00           C
ATOM   2173  C   LEU A 301      22.430  -0.219 -15.678  0.00  0.00           C
ATOM   2174  O   LEU A 301      23.175  -0.688 -14.789  0.00  0.00           O
ATOM   2175  CB  LEU A 301      20.365  -1.619 -15.264  0.00  0.00           C
ATOM   2176  CG  LEU A 301      20.676  -2.282 -13.893  0.00  0.00           C
ATOM   2177  CD1 LEU A 301      19.773  -1.730 -12.768  0.00  0.00           C
ATOM   2178  CD2 LEU A 301      20.517  -3.814 -13.993  0.00  0.00           C
ATOM   2179  N   ARG A 302      23.018   0.219 -16.817  0.00  0.00           N
ATOM   2180  CA  ARG A 302      24.434   0.203 -17.061  0.00  0.00           C
ATOM   2181  C   ARG A 302      24.939   1.503 -17.571  0.00  0.00           C
ATOM   2182  O   ARG A 302      24.166   2.467 -17.732  0.00  0.00           O
ATOM   2183  CB  ARG A 302      24.748  -0.906 -18.101  0.00  0.00           C
ATOM   2184  CG  ARG A 302      24.456  -2.348 -17.625  0.00  0.00           C
ATOM   2185  CD  ARG A 302      25.022  -3.411 -18.591  0.00  0.00           C
ATOM   2186  NE  ARG A 302      24.438  -3.234 -19.878  0.00  0.00           N
ATOM   2187  CZ  ARG A 302      25.001  -3.325 -21.078  0.00  0.00           C
ATOM   2188  NH1 ARG A 302      26.253  -3.712 -21.283  0.00  0.00           N
ATOM   2189  NH2 ARG A 302      24.229  -3.036 -22.113  0.00  0.00           N1+
ATOM   2190  N   LYS A 303      26.247   1.596 -17.911  0.00  0.00           N
ATOM   2191  CA  LYS A 303      26.915   2.623 -18.668  0.00  0.00           C
ATOM   2192  C   LYS A 303      27.621   3.617 -17.835  0.00  0.00           C
ATOM   2193  O   LYS A 303      28.514   4.303 -18.379  0.00  0.00           O
ATOM   2194  CB  LYS A 303      26.125   3.237 -19.864  0.00  0.00           C
ATOM   2195  CG  LYS A 303      26.350   2.473 -21.191  0.00  0.00           C
ATOM   2196  CD  LYS A 303      25.793   1.028 -21.188  0.00  0.00           C
ATOM   2197  CE  LYS A 303      26.564   0.089 -22.136  0.00  0.00           C
ATOM   2198  NZ  LYS A 303      27.389  -0.849 -21.364  0.00  0.00           N1+
ATOM   2199  N   LEU A 304      27.431   3.676 -16.504  0.00  0.00           N
ATOM   2200  CA  LEU A 304      28.325   4.340 -15.607  0.00  0.00           C
ATOM   2201  C   LEU A 304      29.588   3.561 -15.505  0.00  0.00           C
ATOM   2202  O   LEU A 304      30.683   4.119 -15.733  0.00  0.00           O
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ATOM   2203  CB  LEU A 304      27.630   4.552 -14.238  0.00  0.00           C
ATOM   2204  CG  LEU A 304      26.314   5.380 -14.344  0.00  0.00           C
ATOM   2205  CD1 LEU A 304      25.058   4.480 -14.400  0.00  0.00           C
ATOM   2206  CD2 LEU A 304      26.180   6.367 -13.165  0.00  0.00           C
ATOM   2207  N   ILE A 305      29.556   2.232 -15.254  0.00  0.00           N
ATOM   2208  CA  ILE A 305      30.689   1.345 -15.298  0.00  0.00           C
ATOM   2209  C   ILE A 305      31.200   1.209 -16.690  0.00  0.00           C
ATOM   2210  O   ILE A 305      32.396   1.457 -16.952  0.00  0.00           O
ATOM   2211  CB  ILE A 305      30.284  -0.047 -14.712  0.00  0.00           C
ATOM   2212  CG1 ILE A 305      29.695   0.072 -13.276  0.00  0.00           C
ATOM   2213  CG2 ILE A 305      31.488  -1.026 -14.710  0.00  0.00           C
ATOM   2214  CD1 ILE A 305      28.897  -1.174 -12.837  0.00  0.00           C
ATOM   2215  N   TRP A 306      30.354   0.809 -17.667  0.00  0.00           N
ATOM   2216  CA  TRP A 306      30.622   0.720 -19.074  0.00  0.00           C
ATOM   2217  C   TRP A 306      31.564  -0.353 -19.499  0.00  0.00           C
ATOM   2218  O   TRP A 306      32.801  -0.177 -19.488  0.00  0.00           O
ATOM   2219  CB  TRP A 306      30.991   2.117 -19.644  0.00  0.00           C
ATOM   2220  CG  TRP A 306      30.652   2.370 -21.062  0.00  0.00           C
ATOM   2221  CD1 TRP A 306      30.088   1.517 -22.012  0.00  0.00           C
ATOM   2222  CD2 TRP A 306      30.837   3.585 -21.717  0.00  0.00           C
ATOM   2223  NE1 TRP A 306      29.915   2.180 -23.170  0.00  0.00           N
ATOM   2224  CE2 TRP A 306      30.363   3.434 -23.015  0.00  0.00           C
ATOM   2225  CE3 TRP A 306      31.376   4.805 -21.290  0.00  0.00           C
ATOM   2226  CZ2 TRP A 306      30.401   4.491 -23.928  0.00  0.00           C
ATOM   2227  CZ3 TRP A 306      31.427   5.871 -22.201  0.00  0.00           C
ATOM   2228  CH2 TRP A 306      30.939   5.717 -23.510  0.00  0.00           C
ATOM   2229  N   VAL A 307      31.071  -1.520 -19.977  0.00  0.00           N
ATOM   2230  CA  VAL A 307      31.855  -2.575 -20.566  0.00  0.00           C
ATOM   2231  C   VAL A 307      31.381  -2.833 -21.953  0.00  0.00           C
ATOM   2232  O   VAL A 307      31.060  -3.974 -22.359  0.00  0.00           O
ATOM   2233  CB  VAL A 307      31.844  -3.839 -19.651  0.00  0.00           C
ATOM   2234  CG1 VAL A 307      32.494  -3.554 -18.276  0.00  0.00           C
ATOM   2235  CG2 VAL A 307      30.434  -4.440 -19.427  0.00  0.00           C
ATOM   2236  N   ARG A 308      31.230  -1.802 -22.809  0.00  0.00           N
ATOM   2237  CA  ARG A 308      30.777  -1.913 -24.165  0.00  0.00           C
ATOM   2238  C   ARG A 308      31.330  -0.787 -24.943  0.00  0.00           C
ATOM   2239  O   ARG A 308      31.632   0.265 -24.339  0.00  0.00           O
ATOM   2240  CB  ARG A 308      29.224  -1.902 -24.188  0.00  0.00           C
ATOM   2241  CG  ARG A 308      28.599  -2.395 -25.518  0.00  0.00           C
ATOM   2242  CD  ARG A 308      27.050  -2.348 -25.495  0.00  0.00           C
ATOM   2243  NE  ARG A 308      26.429  -3.607 -25.743  0.00  0.00           N
ATOM   2244  CZ  ARG A 308      26.530  -4.714 -25.008  0.00  0.00           C
ATOM   2245  NH1 ARG A 308      27.292  -4.813 -23.926  0.00  0.00           N
ATOM   2246  NH2 ARG A 308      25.853  -5.782 -25.396  0.00  0.00           N1+
ATOM   2247  N   LYS A 309      31.467  -0.839 -26.283  0.00  0.00           N
ATOM   2248  CA  LYS A 309      31.987   0.253 -27.041  0.00  0.00           C
ATOM   2249  C   LYS A 309      30.908   0.921 -27.801  0.00  0.00           C
ATOM   2250  O   LYS A 309      30.791   0.775 -29.037  0.00  0.00           O
ATOM   2251  CB  LYS A 309      33.206  -0.233 -27.865  0.00  0.00           C
ATOM   2252  CG  LYS A 309      34.123   0.949 -28.265  0.00  0.00           C
ATOM   2253  CD  LYS A 309      35.510   0.468 -28.742  0.00  0.00           C
ATOM   2254  CE  LYS A 309      36.459   1.654 -29.005  0.00  0.00           C
ATOM   2255  NZ  LYS A 309      37.803   1.166 -29.332  0.00  0.00           N1+
ATOM   2256  N   ILE A 310      30.089   1.750 -27.118  0.00  0.00           N
ATOM   2257  CA  ILE A 310      29.214   2.718 -27.724  0.00  0.00           C
ATOM   2258  C   ILE A 310      30.001   3.968 -27.938  0.00  0.00           C
ATOM   2259  O   ILE A 310      29.546   4.919 -28.610  0.00  0.00           O
ATOM   2260  CB  ILE A 310      27.953   2.912 -26.818  0.00  0.00           C
ATOM   2261  CG1 ILE A 310      27.200   1.568 -26.593  0.00  0.00           C
ATOM   2262  CG2 ILE A 310      26.974   3.974 -27.387  0.00  0.00           C
ATOM   2263  CD1 ILE A 310      26.159   1.629 -25.455  0.00  0.00           C
ATOM   2264  N   HIS A 311      31.240   4.063 -27.411  0.00  0.00           N
ATOM   2265  CA  HIS A 311      32.121   5.181 -27.479  0.00  0.00           C
ATOM   2266  C   HIS A 311      32.667   5.424 -28.834  0.00  0.00           C
ATOM   2267  O   HIS A 311      33.084   4.460 -29.518  0.00  0.00           O
ATOM   2268  CB  HIS A 311      33.259   4.885 -26.469  0.00  0.00           C
ATOM   2269  CG  HIS A 311      34.175   6.015 -26.254  0.00  0.00           C
ATOM   2270  ND1 HIS A 311      35.505   5.986 -26.411  0.00  0.00           N
ATOM   2271  CD2 HIS A 311      33.854   7.300 -25.831  0.00  0.00           C
ATOM   2272  CE1 HIS A 311      35.995   7.195 -26.104  0.00  0.00           C
ATOM   2273  NE2 HIS A 311      34.988   8.006 -25.753  0.00  0.00           N
ATOM   2274  N   SER A 312      32.779   6.695 -29.272  0.00  0.00           N
ATOM   2275  CA  SER A 312      33.333   7.111 -30.524  0.00  0.00           C
ATOM   2276  C   SER A 312      34.641   7.801 -30.301  0.00  0.00           C
ATOM   2277  O   SER A 312      34.671   9.056 -30.325  0.00  0.00           O
ATOM   2278  CB  SER A 312      32.278   7.998 -31.230  0.00  0.00           C
ATOM   2279  OG  SER A 312      32.859   8.634 -32.362  0.00  0.00           O
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ATOM   2280  N   PRO A 313      35.818   7.144 -30.085  0.00  0.00           N
ATOM   2281  CA  PRO A 313      37.052   7.829 -29.816  0.00  0.00           C
ATOM   2282  C   PRO A 313      37.566   8.544 -30.968  0.00  0.00           C
ATOM   2283  O   PRO A 313      37.929   9.705 -30.869  0.00  0.00           O
ATOM   2284  CB  PRO A 313      38.018   6.714 -29.370  0.00  0.00           C
ATOM   2285  CG  PRO A 313      37.454   5.448 -30.018  0.00  0.00           C
ATOM   2286  CD  PRO A 313      35.948   5.722 -30.086  0.00  0.00           C
END
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Alignment of ORs and non-OR GPCR (fasta format)

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>|hOR1A1|/1-309 protein [Homo sapiens]
---------MREN---NQSST---LEFILLGVTGQQEQEDFFYILFLFIYPITLIGNLLIVLAICSDVRLHN
-PMYFLLANLSLVDIFFSSVTIPKMLANHLL----GSKSISFGGCLTQMYFMIALGNTDSYILAAMAYDRAV
AISRPLHYTT--IMSPRSCIWLIAGSWVIGNANALPHTLLTASLSFCG----NQEVANFYCDITPLLKLSCS
DIHFHVKMMYLGVG-IFSVPLLCIIVSYIRVFSTVFQVPST---------------KGVLKAFSTCGSHLTV
VSLYYGTVMGTYFRPLTNYS-LKDA------------VITVMYTAVTPMLNSFIYSLRNRDMKAALRKLFNK
RISS--------------------
>|hOR1A2|/1-309 olfactory receptor 1A2 [Homo sapiens]
---------MKKE---NQSFN---LDFILLGVTSQQEQNNVFFVIFLCIYPITLTGNLLIILAICADIRLHN
-PMYFLLANLSLVDIIFSSVTIPKVLANHLL----GSKFISFGGCLMQMYFMIALAKADSYTLAAMAYDRAV
AISCPLHYTT--IMSPRSCILLIAGSWVIGNTSALPHTLLTASLSFCG----NQEVANFYCDIMPLLKLSCS
DVHFNVKMMYLGVG-VFSLPLLCIIVSYVQVFSTVFQVPST---------------KSLFKAFCTCGSHLTV
VFLYYGTTMGMYFRPLTSYS-PKDA------------VITVMYVAVTPALNPFIYSLRNWDMKAALQKLFSK
RISS--------------------
>|hOR1G1|/1-313 protein [Homo sapiens]
---------MEGK---NLTSI---SECFLLGFSEQLEEQKPLFGSFLFMYLVTVAGNLLIILVIITDTQLHT
-PMYFFLANLSLADACFVSTTVPKMLANIQI----QSQAISYSGCLLQLYFFMLFVMLEAFLLAVMAYDCYV
AICHPLHYIL--IMSPGLCIFLVSASWIMNALHSLLHTLLMNSLSFCA----NHEIPHFFCDINPLLSLSCT
DPFTNELVIFITGGLTGLICVLCLIISYTNVFSTILKIPSA---------------QGKRKAFSTCSSHLSV
VSLFFGTSFCVDFSSPSTHSAQKDT------------VASVMYTVVTPMLNPFIYSLRNQEIKSSLRKLIWV
RKIHSP--------------------
>|hOR2AG1|1-316/1-316 olfactory receptor 2AG1 [Homo sapiens]
---------MELW---NFTLG---SGFILVGILNDSGSPELLCATITILYLLALISNGLLLLAITMEARLHM
-PMYLLLGQLSLMDLLFTSVVTPKALADFLR----RENTISFGGCALQMFLALTMGGAEDLLLAFMAYDRYV
AICHPLTYMT--LMSSRACWLMVATSWILASLSALIYTVYTMHYPFCR----AQEIRHLLCEIPHLLKVACA
DTSRYELMVYVMGVTFLIPSLAAILASYTQILLTVLHMPSN---------------EGRKKALVTCSSHLTV
VGMFYGAATFMYVLPSSFHSTRQDN------------IISVFYTIVTPALNPLIYSLRNKEVMRALRRVLGK
YMLPAHSTL----------------
>|mOR-I7|/1-327 olfactory receptor I7 [Mus musculus]
---------MERR---NHTGR--VSEFVLLGFPAPAPLRALLFFLSLLAYVLVLTENILIITAIRNHPTLHK
-PMYFFLANMSFLEIWYVTVTIPKMLAGFIGSEENHGQLISFEACMTQLYFFLGLGCTECVLLAVMAYDRYV
AICHPLHYPV--IVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCG----PNTINHFFCDVSPLLNLSCT
DMSTAELTDFILAIFILLGPLSVTGASYMAITGAVMRIPSA---------------AGRHKAFSTCASHLTV
VIIFYAASIFIYARPKALSAFDTNK------------LVSVLYAVIVPLLNPIIYCLRNQEVKKALRRTLHL
AQGQDANTKKSSRDG----------
>|rOR-i7|/1-327 Olfactory receptor 226 OS=Rattus norvegicus GN=Olr226 PE=2
SV=2
---------MERRNHS-----GRVSEFVLLGFPAPAPLRVLLFFLSLLAYVLVLTENMLIIIAIRNHPTLHK
-PMYFFLANMSFLEIWYVTVTIPKMLAGFIGSKENHGQLISFEACMTQLYFFLGLGCTECVLLAVMAYDRYV
AICHPLHYPV--IVSSRLCVQMAAGSWAGGFGISMVKVFLISRLSYCG----PNTINHFFCDVSPLLNLSCT
DMSTAELTDFVLAIFILLGPLSVTGASYMAITGAVMRIPSA---------------AGRHKAFSTCASHLTV
VIIFYAASIFIYARPKALSAFDTNK------------LVSVLYAVIVPLFNPIIYCLRNQDVKRALRRTLHL
AQDQEANTNKGSKNG----------
>mOR-EG/1-313 Olfactory receptor OS=Mus musculus GN=Olfr73 PE=2 SV=1
---------MTLSDGN-----HSGAVFTLLGFSDYPELTIPLFLIFLTIYSITVVGNIGMIVIIRINPKLHI
-PMYFFLSHLSFVDFCYSSIVAPKMLVNLVTM----NRGISFVGCLVQFFFFCTFVVTESFLLGVMAYDRFV
AIRNPLLYTVAMSQRLCAMLVLGSYAWGVVCSLILTCSALNLSFYGFN------MINHFFCEFSSLLSLSRS
DTSVSQLLLFVFATFNEISTLLIILLSYVLIVVTILKMKSA---------------SGRRKAFSTCASHLTA
ITIFHGTILFLYCVPNSKNSRHTVK------------VASVFYTVVIPMLNPLIYSLRNKDVKDTVKKIIGT
KVYSS--------------------
>mOR42-3/1-334 olfactory receptor 544 [Mus musculus]
---------MSGWSNG--TYNESYTSFLLMGFPGMQEARALLVLPFLSLYLVILFTNALVIHTVASQRSLHQ
-PMYLLIALLLAVNICAATTVVPPMLFSFSTR----FNRISLPRCLGQMFCIYFLIVFDCNILLVMALDRYV
AICYPLRYPE--IVTGQLLAGLVVLAVTRSTCIVAPVVVLASRVRFCR----SDVIRHFACEHMALMKLSCG
DISLNKTVGLTVRIFNRVLDMLLLGASYSRIIHAAFRISS---------------GGARSKALNTCGSHLLV
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IFTVYSSTMSSSIVYRVARTASQDV----------HNLLSAFYLLLPCLVNPIIYGARTKEIRQHLVALFQR
TQQQVFTEKPQSLPSNRELPG----
>mOR244-3/1-308 Olfactory receptor OS=Mus musculus GN=Olfr1509 PE=2 SV=1
---------MGALNQT------RVTEFIFLGLTDNWVLEILFFVPFTVTYMLTLLGNFLIVVTIVFTPRLHN
-PMYFFLSNLSFIDICHSSVTVPKMLEGLLLE----RKTISFDNCIAQLFFLHLFACSEIFLLTIMAYDRYV
AICIPLHYSN--VMNMKVCVQLVFALWLGGTIHSLVQTFLTIRLPYCG----PNIIDSYFCDVPPVIKLACT
DTYLTGILIVSNSGTISLVCFLALVTSYTVILFSLRKQSA----------------EGRRKALSTCSAHFMV
VALFFGPCIFLYTRPDSSFSIDKVV--------------SVFYTVVTPLLNPLIYTLRNEEVKTAMKHLRQR
RICS---------------------
>|b1U19|Rhodo|/1-348 Crystal Structure Of Bovine Rhodopsin At 2.2 Angstroms
Resolution
MNGTEGPNFYVPFSNKTG--VVRSPFEAPQYYLAEPWQFSMLAAYMFLLIMLGFPINFLTLYVTVQHKKLRT
-PLNYILLNLAVADLFMVFGGFTTTLYTSLHG----YFVFGPTGCNLEGFFATLGGEIALWSLVVLAIERYV
VVCKPMSNFR---FGENHAIMGVAFTWVMALACAAPPLVGWSRYIPEGMQCS--------CGIDYY---TPH
EETNNESFVIYMFVVHFIIPLIVIFFCYGQLVFTVKEAAAQQQ-------ESATTQKAEKEVTRMVIIMVIA
FLICWLPYAGVAFYIFTHQGSDFGP---------IFMTIPAFFAKTSAVYNPVIYIMMNKQFRNCMVTTLCC
GKNPLGDDEASTTVSKTETSQVAPA
>|h2RH1|beta2|A/29-333 263-342 , Human B2-Adrenergic G Protein- Coupled
Receptor.
---------------------------------DEVWVVGMGIVMSLIVLAIVFGNVLVITAIAKFERLQT
-VTNYFITSLACADLVMGLAVVPFGAAHILMK----MWTFGNFWCEFWTSIDVLCVTASIETLCVIAVDRYF
AITSPFKYQS--LLTKNKARVIILMVWIVSGLTSFLPIQMHWYRATHQEAI-NCYAEETCCDFFT-------
----NQAYAIASSIVSFYVPLVIMVFVYSRVFQEAKRQLKF--------------CLKEHKALKTLGIIMGT
FTLCWLPFFIVNIVH-VIQDNLIRK---------EVYILLNWIGYVNSGFNPLIYCRS-PDFRIAFQELLCL
RRSSLKAYGNGYSSNGNTGEQSG--
>|h2YDV|a2A/1-325 adenosine|
-----------------------------MPIMGSSVYITVELAIAVLAILGNVLVCWAVWLNSNLQN
-VTNYFVVSAAAADILVGVLAIPFAIAISTG------FCAACHGCLFIACFVLVLTASSIFSLLAIAIDRYI
AIRIPLRYNG--LVTGTRAKGIIAICWVLSFAIGLTPMLGWNNCGQPKEGK-A---HSQGCG-EGQVACLFE
DVVPMNYMVYFNFFACVLVPLLLMLGVYLRIFLAARRQLKQMESQPLPGERARSTLQKEVHAAKSLAIIVGL
FALCWLPLHIINCFTFFCPDCSHAP--------LWLMYLAIVLSHTNSVVNPFIYAYRIREFRQTFRKIIRS
HVLRQQEPFKAAAAENLYFQ-----
>|h2LNL|CXCR1|/29-324
--------------------------PCMLETET-LNKYVVIIAYALVFLLSLLGNSLVMLVILYSRVGRS
-VTDVYLLNLALADLLF-ALTLPIWAASKVNG-----WIFGTFLCKVVSLLKEVNFYSGILLLACISVDRYL
AIVHATRTLT--QKRHLVK-FVCLGCWGLSMNLSLPFFLFRQAYHPNNSSP-V-------CYEVLGND---T
AKWRMVLRILPHTFGFI-VPLFVMLFCYGFTLRTLFKAHMG----------------QKHRAMRVIFAVVLI
FLLCWLPYNLVLLADTLMRTQVIQESCERRNNIGRALDATEILGFLHSCLNPIIYAFIGQNFRHG--FLKIL
AMHG---------------------
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